

## CURRICULUM VITAE

Name: Alessandro Sette  
Place and date of birth: Rome, Italy; August 11, 1960  
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### Education:

1974 - 1979 Humanistic studies at Liceo Classico "T. Tasso" in Rome. Final grade: 60/60.  
1979 - 1983 Enrolled in the Department of Biological Sciences of the University of Rome. Average grade: 29.5/30.  
February 1984 FEBS Winter School in "Biochemistry of Aging" in Maria Alm (Austria).  
March 1984 Advanced course on "Combinatorial Logic and Computer Programming" in the Department of Mathematical Sciences at the University of Rome.  
July 1984 Graduated in Biological Sciences (maximum cum laude) with an experimental thesis, realized under the supervision of Prof. G. Doria, on "Age-related changes in radiosensitivity of the immune system."  
September 1984 FEBS-NATO-EMBO Summer School on "Genome Organization and Function" in Spetsai (Greece).  
February 1992 Liquid Chromatography Course (Beckman), Tucson, Arizona.  
June 1992 Tandem Mass Spectrometry Course given by D. Hunt, University of Virginia, Charlottesville, Virginia.  
July 1994 Graduated from 6-month intensive program on Leadership and Management (LAMP) at the University of California San Diego (UCSD)  
Spring 2001 Courses on Bioinformatics and Biological Databases at the San Diego Supercomputer Center (UCSD)

### Working Experience:

*Laboratory of Pathology, C.R.E. Casaccia, Rome.*

Predoctoral Fellow (Supervisor, Gino Doria), 1983 - 1984.

Postdoctoral Fellow (Supervisor, Luciano Adorini), 1984 - 1985.

*National Jewish Center for Immunology and Respiratory Medicine, Denver, Colorado.*

Postdoctoral Fellow (Supervisor, Howard Grey), 1986 - 1988.

*Laboratory of Pathology of E.N.E.A., Casaccia, Rome.*

Biotechnology Consultant in Computer Science, 1986 - 1988.

**Exhibit A**

*Research Institute of Scripps Clinic and Research Foundation, La Jolla, California.*

Adjunct Member, Department of Immunology, 1988 -

*Cytel Corporation, San Diego, California.*

Staff Scientist, 1988 - 1989.

Senior Staff Scientist, 1989 - 1990.

Project Leader of the Autoimmunity Program. This joint program in collaboration with Sandoz Ltd., 1989 - 1992.

Supervisor of Cytel MHC binding assays laboratory, 1989 - 1997.

Associate Director of Immunochemistry, 1990 - 1993.

Member of the Project Team, "Effect of Glycosylation on Peptides' Immunogenicity", 1990 - 1991.

Project Leader of the Food Allergy Program, 1990 - 1991.

Member of the Management Committee, 1992 - 1993.

Director of Immunochemistry, 1993 - 1994.

Project Leader of the Human Papillomavirus Project, 1993 - 1994.

Director of Immunology, 1994 - 1997.

Project Leader of the Fungal Disease Program, in collaboration with Takara Shuzo Co. Ltd., Japan, 1994 - 1997

Member of the Management Committee, 1995 - 1997.

Project Leader of the Technology Development Project, 1995 - 1997.

*Epimmune Inc., San Diego, California.*

Vice President, Chief Scientific Officer, 1997 -

#### Issued U.S. Patents and Inventions:

- Method for Identifying Useful Polypeptide Vaccines. U. S. Patent No. 5,200,320, issued April 6, 1993.
- Induction of Anti-Tumor Cytotoxic T Lymphocytes in Humans Using Synthetic Peptide Epitopes. U.S. Patent No. 5,662,907, issued September 2, 1997.
- Immunosuppressant Peptides. U. S. Patent No. 5,679,640, issued October 21, 1997.
- Alteration of Immune Response Using PAN DR-Binding Peptides. U.S. Patent No. 5,736,142, issued April 7, 1998.
- DNA Encoding Mage-1 C Terminal Cytotoxic T Lymphocyte Immunogenic Peptides. U.S. Patent No. 5,750,395, issued May 12, 1998.
- Methods for making HLA Binding Peptides and Their Uses. U.S. Patent No. 6,037,135, issued March 14, 2000.
- Oncogene Fusion Protein Peptide Vaccines. U.S. Patent No. 6,156,316, issued December 5, 2000.

#### Editorial Responsibilities:

Ad Hoc reviewer for Nature, Science, Cell, Immunity, Journal of Experimental Medicine, Proceedings of the National Academy of Sciences, Cancer Research, Journal of Clinical Investigation, Journal of Immunological Methods, International Immunology, Autoimmunity, Immunology Today, Biochimica and Biophysica Acta, J.of Virol, and Hepatology.

1992 - 1998	Associate Editor, The Journal of Immunology
1993 -	Peer Review Consultant, National Institutes of Health and National Cancer Institute.
1994 - 1997	Member, Arthritis Foundation Study Section, Cellular Immunology

- 1996 Ad Hoc Consultant for National Science Foundation, European Science Institute, Istituto Superiore di Sanita', Wellcome Trust, ITN and other funding agencies
- 1998 - 1999 Member, HIV Vaccines Study Session, National Institutes of Health
- 1998 - 1999 Editorial Board Member: Human Immunology, Current Pharmaceutical Biotechnology; Current Drugs, Tissue Antigens.

#### Memberships and Society Affiliations:

Gruppo di Cooperazione in Immunologia, Societa' Italiana di Biometria, Societa' Italiana di Biochimica, American Association of Immunologists, American Association of Microbiologists, American Society for Microbiology, American Chemical Society, The Protein Society, N. Y. Academy of Science, and American Association for Cancer Research

#### Honors and Awards:

- 1990 51st Oregon State University Biological Colloquium Award
- 1994 - 1995 Co-Investigator. Molecular Events in Antigen Recognition, National Institutes of Health grant (H. M. Grey, P.I.).
- 1994 - 1996 SubProject P.I. Isolation and Characterization of MHC-Bound Self-Peptides in Autoimmune Disease, National Institutes of Health grant (K.S.K. Tung, P.I.).
- 1994 - 1999 Principal Investigator. A General Strategy for Identification of Broadly Reactive HLA Restricted T Cell Epitopes, NIAID Contract No. NOAI45241.
- 1995 Member of A. Geluk Ph.D. thesis graduating committee, University of Leiden, The Netherlands.
- 1995 American Association of Immunologists Investigator Award.
- 1995 - 1998 Co-Investigator. Development of Peptide-based Immunotherapeutic for AIDS, National Institutes of Health, National Institute of Allergy and Infectious Diseases, SPIRAT Grant. Contract No. U19 AI38584-01/05.
- 1996 - 1997 Principal Investigator. Vaccine Approaches to Treatment of Hepatitis C Infection, National Institutes of Health, SBIR Grant (Phase I). Contract No. 1R 43 AI38620-01
- 1996 - 1997 Co-Investigator. Peptide Based Vaccine for Primate Model of AIDS, National Institutes of Health, National Institute of Allergy and Infectious Diseases, SIV Grant (Phase I). Contract No. 1R 43 AI38081-01.
- 1997 - 1998 Co-Investigator. Processing & Presentation of Lipopeptides and Minigenes, National Institutes of Health, National Institute of Allergy and Infectious Diseases, HIV Grant. Contract No. 1 R21 AI42699-01.
- 1997 - 1999 Principal Investigator. A Peptide Vaccine for Breast Cancer Prevention, University of California, Breast Cancer Research Program. Contract No. 1RB-0302.
- 1998 - 1999 Co-Investigator. Peptide Based Vaccine for Primate Model of AIDS, National Institutes of Health, National Institute of Allergy and Infectious Diseases, SIV Grant (Phase II). Contract No. 2R 44 AI38081-02.
- 1998 - Member of the Kriegler Lecture and Award Selection Committee
- 1998 - 2000 Principal Investigator. Vaccine Approaches to Treatment of Hepatitis C Infection, National Institutes of Health, SBIR Grant (Phase II). Contract No. 2R 44 AI38620-03.
- 1999 - 2004 Principal Investigator. Application of Data on HLA and CD1 to the Improvement of Vaccines, National Institutes of Health, Contract No. N01-AI-95362.
- 2000 - 2005 Co-Investigator. MHC-Bound, SIV-Derived CTL and Epitopes. National Institutes of Health. Grant # R24 RR 15371.

- 2000-2004 Co-Investigator. Epitope-Based DNA Vaccines for AIDS Therapy. National Institutes of Health. Grant # PO1-AI-48238 (IPCP).
- 2001 American Liver Foundation Award for Biotechnology Companies
- 2002 ISI highly cited investigator (top 200 in the Immunology category over the 1981-2000 period, with over 11,000 Citation Index citations).

## PUBLICATIONS

### Papers in Scientific Journals:

1. Colizzi, V., Palmieri, G., Sette, A., Appella, E., Doria, G., and Adorini, L. Synthetic peptides in the analysis of the induction and regulation of delayed-type hyper-sensitivity to lysozyme. *Folia Biol. (Praha)* 31:396-401, 1985.
2. Adorini, L., Palmieri, G., Sette, A., Appella, E., and Doria, G. Expression of T-cell receptor by a mouse monoclonal antigen-specific suppressor T-cell line. *Curr. Top. Microbiol. Immunol.* 126:53-61, 1986.
3. Sette, A., Adorini, L., Marubini, E., and Doria, G. A microcomputer program for probit analysis of interleukin-2 (IL-2) titration data. *J Immunol Methods* Feb.; 86(2):265-277, 1986
4. Sette, A., Colizzi, V., Appella, E., Doria, G., and Adorini, L. Analysis of lysozyme-specific immune responses by synthetic peptides. I. Characterization of antibody and T cell-mediated responses to the N-terminal peptide of hen egg-white lysozyme. *Eur J Immunol* 16:1-6, 1986.
5. Sette, A., Doria, G., and Adorini, L. A microcomputer program for hydrophilicity and amphipathicity analysis of protein antigens. *Mol. Immunol.* 23:807-810, 1986.
6. Buus, S., Sette, A., Colon, S. M., Jenis, D. M., and Grey, H. M. Isolation and characterization of antigen-Ia complexes involved in T cell recognition. *Cell* 47:1071-77, 1986.
7. Guillet, J.-G., Lai, M.-Z., Briner, T. J., Buus, S., Sette, A., Grey, H. M., Smith, J. A., and Geffer, M. L. Immunological self, nonself discrimination. *Science* 235:865-870, 1987.
8. Buus, S., Sette, A., Colon, S. M., Miles, C., and Grey, H. M. The relation between major histocompatibility complex (MHC) restriction and the capacity of Ia to bind immunogenic peptides. *Science* 235:1353-58, 1987.
9. Sette, A., Buus, S., Colon, S., Smith, J. A., Miles, C., and Grey, H. M. Structural characteristics of an antigen required for its interaction with Ia and recognition by T cells. *Nature* 328:395-9, 1987.
10. Sette, A., Buus, S., Colon, S., Miles, C., and Grey, H. M. I-A<sup>d</sup>-binding peptides derived from unrelated protein antigens share a common structural motif. *J Immunol* 141:45-48, 1988.
11. Adorini, L., Sette, A., Buus, S., Grey, H. M., Darsley, M., Lehmann, P. V., Doria, G., Nagy, Z. A., and Appella, E. Interaction of an immunodominant epitope with Ia molecules in T-cell activation. *Proc Natl Acad Sci USA* 85:5181-85, 1988.
12. Sette, A., Adorini, L., Mancini, C., Marubini, E., and Doria, G. Computerized data analysis in cellular immunology. Enhancement and suppression of immune responses. *J Immunol Methods* 112:91-98, 1988.
13. Buus, S., Sette, A., Colon, S. M., and Grey, H. M. Autologous peptides constitutively occupy the antigen binding site on Ia. *Science* 242:1045-47, 1988.
14. Sette, A., Doria, G., and Adorini, L. A basic library of microcomputer programs to obtain immunologically relevant information from protein sequences. *Int J Biomed Comput* 22:165-181, 1988.
15. Sette, A., Buus, S., Colon, S., Miles, C., and Grey, H. M. Structural analysis of peptides capable of binding to more than one Ia antigen. *J Immunol* 142:35-40, 1989.
16. Sette, A., Buus, S., Appella, E., Smith, J. A., Chesnut, R., Miles, C., Colon, S. M., and Grey, H. M. Prediction of major histocompatibility complex binding regions of protein antigens by sequence pattern analysis. *Proc Natl Acad Sci USA*, 86:3296-3300, 1989.

17. Schaeffer, E. B., Sette, A., Johnson, D. L., Bekoff, M. C., Smith, J. A., Grey, H. M., and Buus, S. Relative contribution of "determinant selection" and "holes in the T-cell repertoire" to T-cell responses. *Proc Natl Acad Sci USA*, 86:4649-53, 1989.
18. Sette, A., Adorini, L., Colon, S. M., Buus, S., and Grey, H. M. Capacity of intact proteins to bind to MHC class II molecules. *J Immunol* 143:1265-67, 1989.
19. Sette, A., Lamont, A., Buus, S., Colon, S. M., Miles, C., and Grey, H. M. Effect of conformational propensity of peptide antigens in their interaction with MHC class II molecules. Failure to document the importance of regular secondary structures. *J Immunol* 143:1268-73, 1989.
20. Sette, A., Adorini, L., Mancini, C., and Doria, G. A BASIC microcomputer program for data analysis of limiting dilution assays. *Comput Appl Biosci* 5:161, 1989.
21. Sette, A., Adorini, L., Appella, E., Colon, S. M., Miles, C., Tanaka, S., Ehrhardt, C., Doria, G., Nagy, Z. A., Buus, S., and Grey, H. M. Structural requirements for the interaction between peptide antigens and I-E<sup>d</sup> molecules. *J Immunol* 143:3289-94, 1989.
22. Demotz, S., Grey, H. M., Appella, E., and Sette, A. Characterization of a naturally processed MHC class II-restricted T cell determinant of hen egg lysozyme. *Nature* 342:682-684, 1989.
23. Sette, A., Adorini, L., Mancini, C., and Doria, G. An Apple IIE microcomputer program for multiple non-independent comparisons by the Scheffe's test. *Comput Biol Med* 19:403-7, 1989.
24. Lamont, A. G., Powell, M. F., Colón, S. M., Miles, C., Grey, H. M., and Sette, A. The use of peptide analogs with improved stability and MHC binding capacity to inhibit antigen presentation *in vitro* and *in vivo*. *J Immunol* 144:2493-98, 1990.
25. Demotz, S., Grey, H. M., and Sette, A. The minimal number of class II MHC-antigen complexes needed for T cell activation. *Science* 249:1028-30, 1990.
26. Lamont, A. G., Sette, A., Fujinami, R., Colón, S. M., Miles, C., and Grey, H. M. Inhibition of experimental autoimmune encephalomyelitis induction in SJL/J mice by using a peptide with high affinity for IA<sup>s</sup> molecules. *J Immunol* 145:1687-93, 1990.
27. O'Sullivan, D., Sidney, J., Appella, E., Walker, L., Phillips, L., Colón, S. M., Miles, C., Chesnut, R. W., and Sette, A. Characterization of the specificity of peptide binding to four DR haplotypes. *J Immunol* 145:1799-1808, 1990.
28. Sette, A., Sidney, J., Albertson, M., Miles, C., Colón, S. M., Pedrazzini, T., Lamont, A. G., and Grey, H. M. A novel approach to the generation of high affinity class II-binding peptides. *J Immunol* 145:1809-13, 1990.
29. Grammer, S. F., Sette, A., Colón, S., Walker, L., and Chesnut, R. Identification of an HSV-1/HSV-2 cross-reactive T cell determinant. *J Immunol* 145:2249-2253, 1990.
30. Teyton, L., O'Sullivan, D., Dickson, P. W., Lotteau, V., Sette, A., Fink, P., and Peterson, P. A. Invariant chain distinguishes between the exogenous and endogenous antigen presentation pathways. *Nature* 348:39-44, 1990.
31. O'Sullivan, D., Sidney, J., del Guercio, M-F., Colón, S. M., and Sette, A. Truncation analysis of several DR binding epitopes. *J Immunol* 146:1240-46, 1991.
32. Krieger, J. I., Karr, R. W., Grey, H. M., Yu, W-Y., O'Sullivan, D., Batovsky, L., Zheng, Z-L., Colón, S. M., Gaeta, F. C. A., Sidney, J., Albertson, M., del Guercio, M-F., Chesnut, R. W., and Sette, A. Single amino acid changes in DR and antigen define residues critical for peptide-MHC binding and T cell recognition. *J Immunol* 146:2331-40, 1991.
33. Pedrazzini, T., Sette, A., Albertson, M., and Grey, H. M. Free ligand-induced dissociation of MHC-antigen complexes. *J Immunol* 146:3496-3501, 1991.
34. Panina-Bordignon, P., Corradin, G., Roosnek, E., Sette, A., and Lanzavecchia, A. Recognition by class II alloreactive T cells of processed determinants from human serum proteins. *Science* 252:1548-50, 1991.

35. Leighton, J., Sette, A., Sidney, J., Appella, E., Ehrhardt, C., Fuchs, S., and Adorini, L. Comparison of structural requirements for interaction of the same peptide with I-E<sup>k</sup> and I-E<sup>d</sup> molecules in the activation of MHC class II-restricted T cells. *J Immunol* 147:198-204, 1991.
36. Roudier, J., Sette, A., Lamont, A., Albani, S., Karras, J.G., and Carson, D.A. Tolerance to a self peptide from the third hypervariable region of the E<sup>s</sup><sub>p</sub> chain. Implications for molecular mimicry models of autoimmune disease. *Eur J Immunol* 21:2063-67, 1991.
37. O'Sullivan, D., Arrhenius, T., Sidney, J., DelGuercio, M-F, Albertson, M., Wall, M., Oseroff, C., Southwood, S., Colon, S.M., Gaeta, C.A., Sette, A. On the interaction of promiscuous antigenic peptides with different DR alleles. Identification of common structural motifs. *J. Immunol* 147 (8):2663-2669, 1991
38. Demotz, S., Sette, A., Sakaguchi, K., Buchner, R., Appella, E., and Grey, H. M. Self peptide requirement for class II major histocompatibility complex allorecognition. *Proc Natl Acad Sci USA* 88:8730-34, 1991.
39. Sette, A., Vitiello, A., Farness, P., Furze, J., Sidney, J., Claverie, J. M., Grey, H. M., and Chesnut, R. Random association between the peptide repertoire of A2.1 class I and several different DR class II molecules. *J Immunol* 147:3893-3900, 1991.
40. Sette, A., Southwood, S., O'Sullivan, D., Gaeta, F. C. A., Sidney, J., and Grey, H. M. Effect of pH on class II-peptide interactions. *J Immunol* 148:844-851, 1992.
41. De Magistris, M. T., Alexander, J., Coggeshall, M., Altman, A., Gaeta, F. C. A., Grey, H. M., and Sette, A. Antigen analog/major histocompatibility complexes act as antagonists of the T cell receptor. *Cell* 68:625-634, 1992.
42. Ishioka, G. Y., Lamont, A. G., Thomson, D., Bulbow, N., Gaeta, F. C. A., Sette, A., and Grey, H. M. MHC interaction and T cell recognition of carbohydrates and glycopeptides. *J Immunol* 148:2446-51, 1992.
43. Guéry, J-C., Sette, A., Leighton, J., Dragomir, A., and Adorini, L. Selective immuno-suppression by administration of major histocompatibility complex (MHC) class II-binding peptides. I. Evidence for in vivo MHC blockade preventing T cell activation. *J Exp Med* 175:1345-52, 1992.
44. Hunt, D. F., Michel, H., Dickinson, T. A., Shabanowitz, J., Cox, A. L., Sakaguchi, K., Appella, E., Grey, H. M., and Sette, A. Peptides presented to the immune system by the murine class II major histocompatibility complex molecule I-A<sup>d</sup>. *Science* 256:1817-20, 1992.
45. Wall, M., Southwood, S., Sidney, J., Oseroff, C., del Guercio, M-F., Lamont, A., Colón, S. M., Arrhenius, T., Gaeta, F. C. A., and Sette, A. High affinity for class II molecules as a necessary but not sufficient characteristic of encephalitogenic determinants. *Int Immunol* 4:773-7, 1992.
46. Powell, M. F., Grey, H., Gaeta, F., Sette, A., and Colón, S. Peptide stability in drug development: a comparison of peptide reactivity in different biological media. *J Pharm Sci* 81:731-5, 1992.
47. Boraschi, D., Ghiara, P., Scapigliati, G., Villa, L., Sette, A., and Tagliabue, A. Binding and internalization of the 163-171 fragment of human IL-1 $\beta$ . *Cytokine* 4:201-4, 1992.
48. Sidney, J., Oseroff, C., Southwood, S., Wall, M., Karr, R. W., Ishioka, G., Koning, F., and Sette, A. DRB1\*0301 molecules recognize a structural motif distinct from the one recognized by most DR $\beta$ <sub>1</sub> alleles. *J Immunol* 149:2634-40, 1992.
49. Sette, A., O'Sullivan, D., Sidney, J., Gaeta, F. C. A., Arrhenius, T., Colón, S. M., Appella, E., and Grey, H. M. Multiple amino acid substitutions as a strategy to improve class II binding capacity of peptide molecules. *J Immunol Res.* 4:56-60, 1992.
50. Sette, A., Cernan, S., Kubo, R. T., Sakaguchi, K., Appella, E., Hunt, D. F., Davis, T. A., Michel, H., Shabanowitz, J., Rudersdorf, R., Grey, H. M., and DeMars, R. Invariant chain peptides in most HLA-DR molecules of an antigen-processing mutant. *Science* 258:1801-04, 1992.
51. Alexander, J., Snoke, K., Ruppert, J., Sidney, J., Wall, M., Southwood, S., Oseroff, C., Arrhenius, T., Gaeta, F. C. A., Colón, S. M., Grey, H. M., and Sette, A. Functional consequences of engagement of the T cell receptor by low affinity ligands. *J Immunol* 150:1-7, 1993.

52. Valli, A., Sette, A., Kappos, L., Oseroff, C., Sidney, J., Miescher, G., Hochberger, M., Albert, E. D., and Adorini, L. Binding of myelin basic protein peptides to human histocompatibility leukocyte antigen class II molecules and their recognition by T cells from multiple sclerosis patients. *J Clin Invest* 91:616-628, 1993.
53. Ruppert, J., Alexander, J., Snoke, K., Coggeshall, M., Herbert, E., McKenzie, D., Grey, H. M., and Sette, A. Effect of T-cell receptor antagonism on interaction between T cells and antigen-presenting cells and on T-cell signaling events. *Proc Natl Acad Sci USA* 90:2671-75, 1993.
54. Ostrov, D., Krieger, J., Sidney, J., Sette, A., and Concannon, P. T cell receptor antagonism mediated by interaction between T cell receptor junctional residues and peptide antigen analogues. *J Immunol* 150:4277-83, 1993.
55. Sette, A., Sidney, J., Gaeta, F. C. A., Appella, E., Colón, S. M., del Guercio, M-F., Guéry, J-C., and Adorini, L. MHC class II molecules bind indiscriminately self and non-self peptide homologs: effect on the immunogenicity of non-self peptides. *Int Immunol* 5:631-8, 1993.
56. Ruppert, J., Sidney, J., Celis, E., Kubo, R. T., Grey, H. M., and Sette, A. Prominent role of secondary anchor residues in peptide binding to HLA-A2.1 molecules. *Cell* 74:929-937, 1993.
57. Sette, A., Sidney, J., Oseroff, C., del Guercio, M-F., Southwood, S., Arrhenius, T., Powell, M. F., Colón, S. M., Gaeta, F. C. A., and Grey, H. M. HLA DR4w4-binding motifs illustrate the biochemical basis of degeneracy and specificity in peptide-DR interactions. *J Immunol* 151:3163-70, 1993.
58. Powell, M. F., Stewart, T., Otvos, Jr., L., Urge, L., Gaeta, F. C. A., Sette, A., Arrhenius, T., Thomson, D., Soda, K., and Colón, S. M. Peptide stability in drug development. II. Effect of single amino acid substitution and glycosylation on peptide reactivity in human serum. *Pharma Res* 10:1268-73, 1993.
59. Serra, H. M., Crimi, C., Sette, A., and Celis, E. Fine restriction analysis and inhibition of antigen recognition in HLA-DQ-restricted T-cells by major histocompatibility complex blockers and T cell receptor antagonists. *Eur J Immunol* 23:2967-71, 1993.
60. Snoke, K., Alexander, J., Franco, A., Smith, L., Brawley, J. V., Concannon, P., Grey, H. M., Sette, A., and Wentworth, P. The inhibition of different T cell lines specific for the same antigen with TCR antagonist peptides. *J Immunol* 151:6815-21, 1993.
61. Wucherpfennig, K. W., Sette, A., Southwood, S., Oseroff, C., Matsui, M., Strominger, J. L., and Hafler, D. A. Structural requirements for binding of an immunodominant myelin basic protein peptide to DR2 isotypes and for its recognition by human T cell clones. *J Exp Med* 179:279-90, 1994.
62. Alexander, J., Ruppert, J., Snoke, K., and Sette, A. TCR antagonism and T cell tolerance can be independently induced in a DR restricted, HA specific T cell clone. *Int Immunol* 6:363-7, 1994.
63. Celis, E., Tsai, V., Crimi, C., DeMars, R., Wentworth, P. A., Chesnut, R. W., Grey, H. M., Sette, A., and Serra, H. M. Induction of anti-tumor cytotoxic T lymphocytes in normal humans using primary cultures and synthetic peptide epitopes. *Proc Natl Acad Sci USA* 91:2105-9, 1994.
64. Chen, Y., Sidney, J., Southwood, S., Cox, A. L., Sakaguchi, K., Henderson, R. A., Appella, E., Hunt, D. F., Sette, A., and Engelhard, V. H. Naturally processed peptides longer than nine amino acid residues bind to the class I MHC molecule HLA-A2.1 with high affinity and in different conformations. *J Immunol* 152:2874-81, 1994.
65. Francó, A., Appella, E., Kagnoff, M. F., Chowers, Y., Sakaguchi, K., Grey, H. M., and Sette, A. Peripheral T cell response to A-gliadin in celiac disease: Differential processing and presentation capacities of Epstein-Barr-transformed B cells and fibroblasts. *Clin Immunol. Immunopathol.* 71:75-81, 1994.
66. Kast, W. M., Brandt, R. M. P., Sidney, J., Drijfhout, J-W., Kubo, R. T., Grey, H. M., Melief, C. J. M., and Sette, A. The role of HLA-A motifs in identification of potential CTL epitopes in human papillomavirus type 16 E6 and E7 proteins. *J Immunol* 152:3904-12, 1994.
67. Kubo, R. T., Sette, A., Grey, H. M., Appella, E., Sakaguchi, K., Zhu, N-Z., Arnott, D., Sherman, H., Shabonowitz, J., Michel, H., Bodnar, W. M., Davis, T. A., and Hunt, D. F. Definition of specific peptide motifs for four major HLA-A alleles. *J Immunol* 152:3913-24, 1994.

68. Ishioka, G. Y., Adorini, L., Guéry, J.-C., Gaeta, F. C. A., LaFond, R., Alexander, J., Powell, M. F., Sette, A., and Grey, H. M. Failure to demonstrate long-lived MHC saturation both in vitro and in vivo: Implications for therapeutic potential of MHC-blocking peptides. *J Immunol* 152:4310-19, 1994.
69. Sidney, J., Oseroff, C., del Guercio, M-F., Southwood, S., Krieger, J. I., Ishioka, G. Y., Sakaguchi, K., Appella, E., and Sette, A. Definition of a DQ3.1 specific binding motif. *J Immunol* 152:4516-25, 1994.
70. Wall, K. A., Hu, J-Y., Currier, P., Southwood, S., Sette, A., and Infante, A. J. A disease-related epitope of *Torpedo* acetylcholine receptor: Residues involved in I-A<sup>b</sup> binding, self-nonsel discrimination, and TCR antagonism. *J Immunol* 152:4526-36, 1994.
71. Page, D. M., Alexander, J., Snoke, K., Appella, E., Sette, A., Hedrick, S. M., and Grey, H. M. Negative selection of CD4<sup>+</sup>CD8<sup>+</sup> thymocytes by T cell receptor peptide antagonists. *Proc Natl Acad Sci USA* 91:4057-61, 1994.
72. Franco, A., Southwood, S., Arrhenius, T., Kuchroo, V. K., Grey, H. M., Sette, A., and Ishioka, G. Y. T cell receptor antagonist peptides are highly effective inhibitors of experimental allergic encephalomyelitis. *Eur J Immunol* 24:940-6, 1994.
73. Geluk, A., van Meijgaarden, K. E., Southwood, S., Oseroff, C., Drijfhout, J. W., de Vries, R. R. P., Ottenhoff, T. H. M., and Sette, A. HLA-DR3 molecules can bind peptides carrying two alternative specific submotifs. *J Immunol* 152:5742-8, 1994.
74. Bertoletti, A., Sette, A., Chisari, F. V., Penna, A., Levrero, M., De Carli, M., Fiaccadori, F., and Ferrari, C. Natural variants of cytotoxic epitopes are T-cell receptor antagonists for antiviral cytotoxic T cells. *Nature* 369:407-10, 1994.
75. Sette, A., Sidney, J., del Guercio, M-F., Southwood, S., Ruppert, J., Dahlberg, C., Grey, H. M., and Kubo, R. T. Peptide binding to the most frequent HLA-A class I alleles measured by quantitative molecular binding assays. *Molec Immunol.* 31:813-22, 1994.
76. Kuchroo, V. K., Greer, J. M., Kaul, D., Ishioka, G., Franco, A., Sette, A., Sobel, R. A., and Lees, M. B. A single TCR antagonist peptide inhibits experimental allergic encephalomyelitis mediated by a diverse T cell repertoire. *J Immunol* 153:3326-36, 1994.
77. Bertoletti, A., Costanzo, A., Chisari, F. V., Levrero, M., Artini, M., Sette, A., Penna, A., Giuberti, T., Fiaccadori, F., and Ferrari, C. Cytotoxic T lymphocyte response to a wild type hepatitis B virus epitope in patients chronically infected by variant viruses carrying substitutions within the epitope. *J Exp Med* 180:933-43, 1994.
78. Alexander, J., Sidney, J., Southwood, S., Maewal, A., Ruppert, J., Oseroff, C., Kubo, R. T., Sette, A., and Grey, H. M. Development of high potency universal DR-restricted helper epitopes by rational engineering of high affinity DR blocking peptides. *Immunity*, 1:751-61, 1994.
79. Salvat, S., Rochelle, L., Begovich, A., Geburher, L., Sette, A., and Roudier, J. Tolerance to a self peptide from the third hypervariable region of HLA DRB1\*0401. Implications for the association of HLA-DR4 with rheumatoid arthritis. *J Immunol*, 153:5321-29, 1994.
80. Sette, A., Vitiello, A., Reheman, B., Fowler, P., Nayersina, R., Oseroff, C., Yuan, L., Ruppert, J., Sidney, J., del Guercio, M-F., Southwood, S., Kubo, R. T., Chesnut, R. W., Grey, H. M., and Chisari, F. V. The relationship between class I binding affinity and immunogenicity of potential cytotoxic T cell epitopes. *J Immunol*, 153:5586-92, 1994.
81. Celis, E., Fikes, J., Wentworth, P., Sidney, J., Southwood, S., Maewal, A., del Guercio, M-F., Sette, A., and Livingston, B. Identification of potential CTL epitopes of tumor-associated antigen MAGE-1 for five common HLA-A alleles. *Molec Immunol.*, 31:1423-30, 1994.
82. Sidney, J., del Guercio, M-F., Southwood, S., Engelhard, V. H., Appella, E., Rammensee, H-G., Falk, K., Rötzschke, O., Takiguchi, M., Kubo, R. T., Grey, H. M., and Sette, A. Several HLA alleles share overlapping peptide specificities. *J Immunol*, 154:247-59, 1995.



83. del Guercio, M-F., Sidney, J., Hermanson, G., Perez, C., Grey, H. M., Kubo, R. T., and Sette, A. Binding of an antigen peptide to multiple HLA alleles allows definition of an A2-like supermotif. *J Immunol*, 154:685-93, 1995.
84. Sette, A., Southwood, S., Miller, J., and Appella, E. Binding of MHC class II to the invariant chain derived peptide, CLIP, is regulated by allelic polymorphism in class II. *J Exp Med*, 181:677-83, 1995.
85. Rivoltini, L., Kawakami, Y., Sakaguchi, K., Southwood, S., Sette, A., Robbins, P. F., Marincola, F. M., Salgaller, M. L., Yannelli, J. R., Appella, E., and Rosenberg, S. A. Induction of tumor reactive CTL from peripheral blood and tumor infiltrating lymphocytes of melanoma patients by in vitro stimulation with an immunodominant peptide of the human melanoma antigen MART-1. *J Immunol*, 154:2257-65, 1995.
86. Guéry, J.-C., Sette, A., Appella, E., and Adorini, L. Constitutive presentation of dominant epitopes from endogenous naturally processed self  $\beta 2$  microglobulin to class II-restricted T cells leads to self tolerance<sup>1</sup>. *J Immunol*, 154:545-54, 1995.
87. Rehmann, B., Fowler, P., Sidney, J., Person, J., Redeker, A., Brown, M., Moss, B., Sette, A., and Chisari, F. V. The cytotoxic T lymphocyte response to multiple hepatitis B virus polymerase epitopes during and after acute viral hepatitis. *J Exp Med*, 181:1047-58, 1995.
88. Boitel, B., Blank, U., Mège, D., Corradin, G., Sidney, J., Sette, A., and Acuto, O. Strong similarities in antigen fine specificity among DRB1\*1302-restricted tetanus toxin tt830-843-specific TCRs in spite of highly heterogeneous CDR3. *J Immunol*, 154:3245-55, 1995.
89. Fu, X-T., Bono, C. P., Swearingen, C., Schwartz, B. D., Summers, N. L., Sinigaglia, F., Sette, A., Woulfe, S. L., and Karr, R. W. Pocket 4 of the HLA-DR ( $\alpha, \beta 1^*0401$ ) molecule is a major determinant of T cell recognition of peptide. *J Exp Med*, 181:915-26, 1995.
90. Pfeiffer, C., Stein, J., Southwood, S., Ketelaar, H., Sette, A., and Bottomly, K. Altered peptide ligands can control CD4 T lymphocyte Differentiation *in vivo*. *J Exp Med*, 181:1569-74, 1995.
91. Kawakami, Y., Eliyahu, S., Jennings, C., Sakaguchi, K., Kang, X., Southwood, S., Robbins, P. F., Sette, A., Appella, E., and Rosenberg, S. A. Recognition of multiple epitopes in the human melanoma antigen gp100 by tumor-infiltrating T lymphocytes associated with in vivo tumor regression. *J Immunol* 154:3961-8, 1995.
92. Windhagen, A., Scholz, C., Fukaura, H., Sette, A., and Hafler, D. A. Modulation of cytokine patterns of human autoreactive T cell clones by a single amino acid substitution of their peptide ligand. *Immunity*. 2:373-80, 1995.
93. Battegay, M., Fikes, J., DiBisceglie, A. M., Wentworth, P. A., Sette, A., Celis, E., Ching, W.-M., Grakoui, A., Rice, C. M., Kurokohchi, K., Berzofsky, J. A., Hoofnagle, J. H., Feinstone, S. M., and Akatsuka, T. Patients with chronic hepatitis C have circulating cytotoxic T cells which recognize hepatitis C virus-encoded peptides binding to HLA-A2.1 molecules. *J Virol* 69:2462-70, 1995.
94. Bocchia, M., Wentworth, P. A., Southwood, S., Sidney, J., McGraw, K., Scheinberg, D. A., and Sette, A. Specific binding of leukemia oncogene fusion protein peptides to HLA class I molecules. *Blood*. 85:2680-4, 1995.
95. Rensing, M. E., Sette, A., Brandt, R. M. P., Ruppert, J., Wentworth, P. A., Hartman, M., Oseroff, C., Grey, H. M., Melief, C. J. M., and Kast, W. M. Human CTL epitopes derived from the human papillomavirus type 16 E6 and E7 proteins identified through in vivo and in vitro immunogenicity studies of HLA-A\*0201-binding peptides. *J Immunol*, 154:5934-43, 1995.
96. Wizel, B., Houghten, R., Church, P., Tine, J. A., Lanar, D. E., Gordon, D. M., Ballou, W. R., Sette, A., and Hoffman, S. L. HLA-A2-restricted cytotoxic T lymphocyte responses to multiple *plasmodium falciparum* sporozoite surface protein 2 epitopes in sporozoite-immunized volunteers. *J Immunol* 155:766-75, 1995.
97. Markovic-Plese, S., Fukaura, H., Zhang, J., Al-Sabbagh, A., Southwood, S., Sette, A., Kuchroo, V. K., and Hafler, D. A. T cell recognition of immunodominant and cryptic proteolipid protein epitopes in humans. *J Immunol*, 155:982-92, 1995.

98. Höllesberg, P., Weber, W. E. J., Dangond, F., Batra, V., Sette, A., and Hafler, D. A. Differential activation of proliferation and cytotoxicity in human T cell lymphotropic virus type1 tax specific CD8 T cells by an altered peptide ligand. *Proc Natl Acad Sci USA*, 92:4036-40, 1995.
99. Wentworth, P. A., Celis, E., Crimi, C., Stitely, S., Hale, L., Tsai, V., Serra, H. M., del Guercio, M-F., Livingston, B., Alazard, D., Fikes, J., Kubo, R. T., Grey, H. M., Chesnut, R. W., and Sette, A. In vitro induction of primary antigen-specific CTL from human peripheral blood mononuclear cells stimulated with synthetic peptides. *Mol Immunol* 32:603-12, 1995.
100. Singh, R. R., Kumar, V., Ebling, F. M., Southwood, S., Sette, A., Sercarz, E. E., and Hahn, B. H. T cell determinants from autoantibodies to DNA can upregulate autoimmunity in murine systemic lupus erythematosus. *J Exp Med* 181:2017-28, 1995.
101. Nanda, N. K., Arzoo, K. K., Geysen, M. H., Sette, A., and Sercarz, E. E. Recognition of multiple peptide cores by a single T cell receptor. *J Exp Med*, 182:531-9, 1995.
102. Kumar, V., Bhardwaj, V., Soares, L., Alexander, J., Sette, A., and Sercarz, E. Major histocompatibility complex binding affinity of an antigenic determinant is crucial for the differential secretion of interleukin 4/5 or interferon  $\gamma$  by T cells. *Proc Natl Acad Sci USA* 92:9510-14, 1995.
103. Kondo, A., Sidney, J., Southwood, S., del Guercio, M.-F., Appella, E., Sakamoto, H., Celis, E., Grey, H. M., Chesnut, R. W., Kubo, R. T., Sette, A. Prominent roles of secondary anchor residues in peptide binding to HLA-A24 human class I molecules. *J Immunol* 155:4307-12, 1995.
104. van Endert, P. M., Riganelli, D., Greco, G., Fleischauer, K., Sidney, J., Sette, A., and Bach, J.-F. The peptide-binding motif for the human transporter associated with antigen processing. *J Exp Med*, 182:1883-95, 1995.
105. Trembleau, S., Giacomini, P., Guéry, J.-C., Setini, A., Hammer, J., Sette, A., Appella, E., and Adorini, L. DR $\alpha$ :E $\beta$  heterodimers in DRA-transgenic mice hinder expression of E $\alpha$ :E $\beta$  molecules and are more efficient in antigen presentation. *Int Immunol*, 7:1927-38, 1995.
106. Brunner, M., Southwood, S., Sette, A., Buus, S., Mitchison, A. Altered TH1/TH2 balance associated with the immunosuppressive/protective effect of the H-2A<sup>b</sup> allele on the response to allo-HPPD. *Eur J Immunol* 25:3285-9, 1995.
107. Greer, J. M., Sobel, R. A., Sette, A., Southwood, S., Lees, M. B., and Kuchroo, V. K. Immunogenic and encephalitogenic epitope clusters of myelin proteolipid protein. *J Immunol* 156:371-9, 1996.
108. Sidney, J., Grey, H. M., Southwood, S., Celis, E., Wentworth, P. A., del Guercio, M.-F., Kubo, R. T., Chesnut, R. W., and Sette, A. Definition of an HLA-A3-like supermotif demonstrates the overlapping peptide-binding repertoires of common HLA molecules. *Human Immunol.* 45:79-93, 1996.
109. Wentworth, P. A., Vitiello, A., Sidney, J., Keogh, E., Chesnut, R. W., Grey, H. M., and Sette, A. Differences and similarities in the A2.1-restricted cytotoxic T cells repertoire in humans and human leukocyte antigen transgenic mice. *Eur J Immunol* 26:97-101, 1996.
110. Wentworth, P. A., Sette, A., Celis, E., Sidney, J., Southwood, S., Crimi, C., Stitely, S., Livingston, B., Alazard, D., Vitiello, A., Grey, H. M., Chisari, F. V., Chesnut, R. W., and Fikes, J. Identification of A2-restricted HCV-specific CTL epitopes from highly conserved regions of the viral genome. *Int Immunol* 8:651-9, 1996.
111. Rensing, M. E., van Driel, W. J., Celis, E., Sette, A., Brandt, R. M. P., Hartmen, M., Anholts, J. D. H., Schreuder, G., M. T., ter Harmsel, W. B., Fleuren, G. J., Trimpos, B. J., Kast, W. M., and Melief, C. J. M. Occasional memory cytotoxic T cell responses of patients with human papillomavirus type 16-positive cervical lesions against an HLA-A\*0201-restricted E7-encoded epitope. *Can Res* 56:582-8, 1996.
112. Topalian, S. L., Gonzales, M. I., Parkhurst, M., Li, Y. F., Southwood, S., Sette, A., Rosenberg, S. A., and Robbins, P. F. Melanoma-specific CD4<sup>+</sup> T cells recognize nonmutated HLA-DR-restricted tyrosinase epitopes. *J Exp Med* 183:1965-72, 1996.
113. Chaturvedi, P., Yu, Q., Southwood, S., Sette, A., and Singh, B. Peptide analogs with different affinities for MHC alter the cytokine profile of T helper cells. *Int Immunol* 8:745-55, 1996.

114. Bocchia, M., Korontsvit, T., Xu, Q., Mackinnon, S., Yang, S., Y., Sette, A., and Scheinberg, D. A. Specific human cellular immunity to ber-abl oncogene derived peptides. *Blood* 87:3587-92, 1996.
115. di Marzo Veronese, F., Arnott, D., Barnaba, V., Loftus, D. J., Sakaguchi, K., Thompson, C. B., Salemi, S., Mastroianni, C., Sette, A., Shabanowitz, J., Hunt, D. F., and Appella, E. Auto-reactive cytotoxic T lymphocytes in HIV-1 infected subjects. *J Exp Med* 183:2509-16, 1996.
116. Sidney, J. Southwood, S., del Guercio, M-F., Grey, H. M., Chesnut, R. W., Kubo, R. T., and Sette, A. Specificity and degeneracy in peptide binding to HLA-B7-like class I molecules. *J Immunol* 157:3480-90, 1996.
117. Parkhurst, M. R., Salgaller, M., Southwood, S., Robbins, P., Sette, A., Rosenberg, S. A., and Kawakami, Y. Improved induction of melanoma-reactive CTL with peptides from the melanoma antigen gp100 modified at HLA-A\*0201 binding residues. *J Immunol* 157:2539-48, 1996.
118. Vitiello, A., Yuan, L., Chesnut, R.W., Sidney, J., Southwood, S., Farness, P., Jackson, M.R., Peterson, P.A., and Sette, A. Immunodominance analysis of CTL responses to the InfluenzaPR8 virus reveals two new dominant and subdominant K<sup>b</sup>-restricted epitopes. *J Immunol* 157:5555-62, 1996.
119. van der Most, R. G, Sette, A., Oseroff, C., Alexander, J., Lau, L.L., Southwood, S., Sidney, J., Chesnut, R. W., Matoubian, M. and Ahmed, R. Analysis of cytotoxic T cell responses to dominant and subdominant epitopes during acute and chronic lymphocytic choriomeningitis virus infection. *J Immunol* 157:5543-54, 1996.
120. Alexander, M., Salgaller, M., Celis, E., Sette, A., Barnes, W. A., Rosenberg, S. A., and Steller, M. A. Generation of tumor specific cytolytic T-lymphocytes from peripheral blood of cervical cancer patients by *in vitro* stimulation with a synthetic HPV-16 E7 epitope. *Amer J of Obstetrics and Gyn.* 175:1586-93, 1996.
121. Ausubel, L. J., Kwan, C. K., Sette, A., Kuchroo, V., and Hafler, D. A. Complementary mutations in an antigenic peptide allow for crossreactivity of autoreactive T-cellclones. *Proc Natl Acad Sci USA* 93:15317-22, 1996.
122. Kondo, A., Sidney, J., Southwood, S., del Guercio, M. F., Appella, E., Sakamoto, H., Grey, H., Celis, E., Chesnut, R. W., Kubo, R. T., and Sette, A. Two distinct HLA-A\*0101-specific submotifs illustrate alternative peptide binding modes. *Immunogenetics* 45(4):249-58, 1997.
123. Tsai, V., Southwood, S., Sidney, J., Sakaguchi, K., Kawakami, Y., Appella, E., Sette, A., and Celis, E. Identification of subdominant CTL epitopes of the GP100 melanoma-associated tumor antigen by primary *in vitro* immunization with peptide-pulsed dendritic cells. *J Immunol* 158(4):1796-1802, 1997.
124. La Face, D.M., Couture, C., Anderson, K., Shih, G., Alexander, J., Sette, A., Mustelin, T., Altman, A. and Grey, H.M. Differential T cell signaling induced by antagonist peptide-MHC complexes and the associated phenotypic responses. *J Immunol* 158(5): 2057-64, 1997.
125. Gulukota, K., Sidney, J., Sette, A., and DeLisi, C. Two complementary methods for predicting peptides binding to major histocompatibility complex molecules. *J Mol Biol.* 267(5):1258-67, 1997.
126. del Guercio, M. F., Alexander, J., Kubo, R. T., Arrhenius, T., Maewal, A., Appella, E., Hoffman, S. L., Jones, T., Valmori, D., Sakaguchi, K., Grey, H. M., and Sette, A. Potent immunogenic short linear peptide constructs composed of B cell epitopes and Pan DR T Helper Epitopes (PADRE) for antibody responses *in vivo*. *Vaccine* 15(4):441-8, 1997.
127. Vitiello, A., Sette, A., Yuan, L., Farness, P., Southwood, S., Sidney, J., Chesnut, R. W., Grey, H. M., and Livingston, B. Comparison of cytotoxic T lymphocyte responses induced by peptide or DNA immunization: Implications on immunogenicity and immunodominance. *Eur J Immunol* 27(3):671-8, 1997.
128. Geluk, A., van Medgaarden, K. E., de Vries, R. R. P., Sette, A., and Ottenhoff, T. H. M. A DR17-restricted T cell epitope from a secreted Mycobacterium tuberculosis antigen only binds to DR17 molecules at neutral PH. *Eur J Immunol* 27(4):842-847, 1997.

129. Stenger, S., Mazzaccaro, R. J., Uyemura, K., Cho, S., Barnes, P. F., Rodat, J. P. Sette, A., Brenner, M. B., Porcelli, S. A., Bloom, B.R., Modlin, R.L. Differential effects of cytotoxic T cell subsets on intracellular infection. *Science* 276(5319):1684-7, 1997.
130. Kim, J., Sette, A., Rodda, S., Southwood, S., Sieling, P.A., Mehra, V., Ohmen, J.D., Oliveros, J., Appella, E., Higashimoto, Y., Rea, T.H., Bloom, B.R., Modlin, R.L. Determinants of T cell reactivity to the *Mycobacterium leprae* GroES homologue. *J Immunol* 159(1):335-43, 1997.
131. Bertoni, R., Sidney, J., Fowler, P., Chisari, F. and Sette, A. Human histocompatibility leukocyte antigen-binding supermotifs predict broadly cross-reactive cytotoxic T lymphocyte responses in patients with acute hepatitis. *J Clin Invest* 100(3):503-13, 1997.
132. Threlkeld, S.C., Wentworth, P.A., Kalams, S.A., Wilkes, B. M., Ruhle, D. J., Sidney, J., Southwood, S., Walker, B. D., Sette, A. Degenerate and promiscuous recognition by CTL of peptides presented by the MHC class I A3-like superfamily. *J Immunol* 159(4):1648-57, 1997.
133. Doolan, D. L., Hoffman, S. L., Southwood, S., Wentworth, P. A., Sidney, J., Chesnut, R. W., Keogh, E., Appella, E., Nahlen, B. L., Hawley, W. A., Nutman, T. B., Gordon, D. M., Udkhayakumar, V., Lal, A. A., Sette, A. Degenerate cytotoxic T cell epitopes from *P. falciparum* restricted by multiple HLA-A and HLA-B supertype alleles. *Immunity* 7(1):97-112, 1997.
134. Livingston, B., Crimi, C., Grey, H., Ishioka, G., Chisari, F. V., Fikes, J., Grey, H., Chesnut, R. W., and Sette, A. The Hepatitis B virus-specific CTL responses induced in humans by lipopeptide vaccination are comparable to those elicited by acute viral infection. *J Immunol* 159(3):1383-92, 1997.
135. Nicholson, L.B., Murtaza, A., Hafler, B.P., Sette, A., and Kuchroo, V.K. A T cell receptor antagonist peptide induces T cells that mediate bystander suppression and prevent autoimmune encephalomyelitis induced with multiple myelin antigens. *Proc Natl Acad Sci USA* 94(17):9279-84, 1997.
136. Diepolder, H.M., Gerlach, T., Zachoval, R., Hoffman, R.M., Jung, M.-C., Wierenga, E.A., Scholzll, S., Houghton, M., Southwood, S., Sette, A., and Pape, G.R. The CD4+ T lymphocyte response to the hepatitis C virus non-structural protein 3 (NS3) in resolving acute hepatitisC focuses on a single, promiscuous 14-amino-acid peptide. *J Virol* 71(8):6011-9, 1997.
137. van der Most, R.G., Concepcion, R.J., Oseroff, C., Alexander, A., Southwood, S., Sidney, J., Chesnut, R.W., Ahmed, R., and Sette, A. Uncovering subdominant cytotoxic T-lymphocyte epitopes in lymphocytic choriomenengitis virus infected BALB/c mice. *J Virol* 71(7):5110-4, 1997.
138. Salazar-Onfray, F., Nakazawa, T., Chhajlani, V., Petersson, M., Karre, K., Masucci, G., Celis, E., Sette, A., Southwood, S., Appella, E. and Kiessling, R. Synthetic peptides derived from the melanocyte stimulating hormone receptor MC1R can stimulate HLA-A2 restricted CTL that recognize naturally processed peptides on human melanoma cells. *Can Res* 57(19):4348-55, 1997.
139. Bertoletti, A., Southwood, S., Chesnut, R.W., Sette, A., Falco, M., Ferrara, G. B., Penna, A., Boni, C., Fiaccadori, F., Ferrari, C. Molecular features of the hepatitis B virus nucleocapsid T cell epitope 18-27: Interaction with HLA and T cell receptor. *Hepatology* 26(4):1027-34, 1997.
140. Alexander, J., Oseroff, C., Sidney, J., Wentworth, P., Keogh, E., Hermanson, G., Chisari, F.V., Kubo, R.T., Grey, H.M., and Sette, A. Derivation of HLA-A11/K<sup>b</sup> transgenic mice: functional CTL repertoire and recognition of human A11-restricted CTL epitopes. *J Immunol* 159(10):4753-61, 1997.
141. Tanaka, F., Fujie, T., Tahara, K., Mori, M., Takesako, K., Sette, A., Celis, E., and Akiyoshi, T. Induction of antitumor cytotoxic T lymphocytes with a MAGE-3-encoded synthetic peptide presented by human leukocytes antigen-A24<sup>1</sup>. *Cancer Research* 57(20):4465-8, 1997.
142. Chang, K.-M., Rehmann, B., McHutchison, J.G., Pasquinelli, C., Southwood, S., Sette, A., and Chisari, F.V. Immunological significance of Cytotoxic T Lymphocyte epitope variants in patients chronically infected by the hepatitis C virus. *J Clin Invest* Nov. 1;100(9):2376-85, 1997.

143. Dressel, A., Chin, J.L., Sette, A., Gausling, R., Hollsberg, P., and Hafler, D.A. Autoantigen recognition by human CD8 T cell clones: enhanced agonist response induced by altered peptide ligands. *J Immunol* 159(10):4943-51, 1997.
144. Sidney, J., del Guercio, M-F., Southwood, S., Hermanson, G., Maewal, A., Appella, E., and Sette, A. The HLA-A\*0207 peptide binding repertoire is limited to a subset of the A\*0201 repertoire. *Hum Immunol* Nov. 58(1):12-20, 1997.
145. Altuvia, Y., Sette, A., Sidney, J., Southwood, S., Margalit, H. A structure-based algorithm to predict potential binding peptides to MHC molecules with hydrophobic binding pockets. *Hum Immunol* 58(1):1-11, 1997.
146. Nicholson, L.B., Walderner, H., Carrizosa, A.M., Sette, A., Collins, M., and Kuchroo, V.K. Heteroclitic proliferative responses and changes in cytokine profile induced by altered peptides: implications for autoimmunity. *Proc Natl Acad Sci, USA* Jan 6; 95(1):264-9, 1998.
147. van der Most, R.G., Murali-Krishna, K., Whitton, J.L., Oseroff, C., Alexander, A., Southwood, S., Sidney, J., Chesnut, R.W., Sette, A., and Ahmed, R. Identification of D<sup>b</sup> and K<sup>b</sup> restricted subdominant cytotoxic T-cell responses in lymphocytic choriomeningitis virus infected mice. *Virology*, 240(1):158-67, 1998.
148. Shi, Y., Kaliyapermal, A., Lu, L., Southwood, S., Sette, A. and Datta, S. Promiscuous presentation and recognition of nucleosomal autoepitopes in lupus: Role of autoimmune T cell receptor  $\alpha$  chain. *J Exp Med* 187(3):367-78, 1998.
149. Southwood, S., Sidney, J., Kondo, A., del Guercio, M-F., Appella, E., Hoffman, S., Kubo, R.T., Chesnut, R.W., Grey, H.M. and Sette, A. Several common HLA-DR types share a largely overlapping peptide binding repertoire. *J Immunol*, 160(7):3363-73, 1998.
150. Kawashima, I., Hudson, S., Southwood, S., Sette, A., and Celis, E. The Multi-epitope approach for Immunotherapy for Cancer: Identification of several CTL Epitopes from various tumor-associated antigens expressed on solid epithelial tumors. *Human Immunol.*, 59(1):1-14, 1998.
151. Wang, R-F., Johnston S.L., Southwood, S., Sette, A., and Rosenberg, S.A. Recognition of an antigenic peptide derived from tyrosinase-related protein 2 by CTL in the context of HLA-A31 and -A33. *J Immunol*, 160(2):890-7, 1998.
152. Oseroff, C., Sette, A., Wentworth, P., Celis, E., Maewal, A., Fikes, J., Kubo, R.T., Chesnut, R.W., Grey, H.M., and Alexander, J. Pools of lipidated HTL-CTL constructs prime for multiple HBV and HCV CTL epitope responses. *Vaccine*, 16(8):823-33, 1998.
153. Kuroda, M.J., Schmitz, J.E., Barouch, D.H., Craiu, A., Allen, T.M., Sette, A., Watkins, D.I., Forman, M.A., and Letvin, N.L. Analysis of gag-specific cytotoxic T lymphocytes in simian immunodeficiency virus-infected rhesus monkeys by cell staining with a tetrameric major histocompatibility complex class I-peptide complex. *J Exp Med*, 187(9):1371-81, 1998.
154. Allen, T.M., Sidney, J., del Guercio, M-F., Sette, A., Glickman, R., Johnson, R.P., Lensmeyer, G., Wiebe, D., DeMars, R., Pauza, C. D., and Watkins, D. Characterization of the peptide binding motif of a rhesus MHC class I molecule (Mamu-A \*01) that binds an immunodominant CTL epitope from simian immunodeficiency virus. *J Immunol* 160(12):6062-71, 1998.
155. Sourdiv, D.J., Murali-Krishna, K., Altman, J.D., Zajac, A.J., Whitmire, J.K., Pannetier, C., Kourilsky, P., Evavold, B., Sette, A., Ahmed, R. Conserved T cell receptor repertoire in primary and memory CD8 T cell responses to an acute viral infection. *J Exp Med* Jul 6;188(1):71-82, 1998.
156. Wize, B., Palmieri, M., Mendoza, C., Arana, B., Sette, A., and Tarleton, R. Human infection with *Trypanosoma cruzi* induces parasite antigen-specific cytotoxic T lymphocyte responses. *J Clin Invest*, 102(5):1062-71, 1998.
157. Zugel, U., Shih, G., Sette, A., Alexander, J. and Grey, H.M. Termination of peripheral tolerance to T cell epitope by heteroclitic antigen analogs. *J Immunol* 161(4):1705-9, 1998.

158. Steller, M.A., Gurski, K.J., Murakami, M., Daniel, R.W., Shah, K.V., Celis, E., Sette, A., Trimble, E.L., Park, R.C., Marincola, F.M. Cell-mediated immunological responses in cervical and vaginal cancer patients immunized with a lipidated epitope of human papillomavirus type 16 E7. *Clin Cancer Res*, 4(9):2103-9, 1998.
159. Carrizosa, A.M., Nicholson, L.B., Farzan, M., Southwood, S., Sette, A., Sobel, R.A., and Kuchroo, V.K. Expansion by self antigen is necessary for the induction of experimental autoimmune encephalomyelitis by T cells primed with a cross-reactive environmental antigen<sup>1</sup>. *J Immunol* 161(7):3307-14, 1998.
160. Crowe, P.D., Boehme, S.A., Wong, T., Gaur, A., Sidney, J., Sette, A., and Conlon, P. Differential signaling and hierarchical response thresholds induced by an immunodominant peptide of myelin basic protein and an altered peptide ligand in human T cells. *Hum Immunol.*, 59(11):679-89, 1998.
161. Alexander, J., Del Guercio, M-F., Fikes, J., Chesnut, R.W., Chisari, F.V., Apella, E., and Sette, A. Recognition of a novel naturally processed, A2 restricted, HCV-NS4 epitope triggers IFN-gamma release in absence of detectable cytopathicity. *Hum Immunol.*, 59, 776-82, 1998.
162. Kawashima, I., Tsai, V., Southwood, S., Takesako, K., Celis, E., and Sette, A. Identification of GP100-derived melanoma specific CTL epitopes restricted by HLA-A3 supertype molecules by primary in vitro immunization with peptide-pulsed dendritic cells. *Int J Cancer*, 78:518-24, 1998.
163. Kono, K., Rongcun, Y., Charo, J., Ichihara, F., Celis, E., Sette, A., Appella, E., Sekikawa, T., Matsumoto, Y., and Kiessling, R. Identification of Her2/Neu-derived peptide epitopes recognized by gastric cancer-specific CTLs. *Int J Cancer*, 78:202-8, 1998.
164. Bertoni, R., Sette, A., Sidney, J., Guidotti, L.G., Shapiro, M., Purcell, R., Chisari, F. Human class I supertypes and CTL repertoires extend to chimpanzees. *J. Immunol* 161:4447-4455, 1998.
165. Kundu, S.K., Dupuis, M., Sette, A., Celis, E., Dorner, F., Eibl, M. and Merigan, T.C. Role of pre-immunization virus sequences in cellular immunity in HIV-infected patients during HIV-1 MN r-g160 immunization. *AIDS Res. Hum. Retrovirus*, Dec. 20;14(18):1669-78, 1998.
166. Reynolds, S.R., Celis, E., Sette, A., Fotino, M., and Bystryin, J-C. HLA-independent heterogeneity of CD8+ T cell responses to MAGE-3, Melan A/MART-1, gp100, tyrosinase, MC1R and TRP-2 in vaccine-treated melanoma patients. *J Immunol*, Dec. 15; 161(12):6970-6, 1998.
167. Naujokas, M.F., Southwood, S., Mathies, S.J., Apella, E., Sette, A., Miller, J. T cell recognition of flanking residues of murine invariant chain-derived CLIP peptide bound to MHC class II. *Cell Immunol.*, 188(1):49-54, 1998.
168. Parkhurst, M.R., Fitzgerald, E.B., Southwood, S., Sette, A., Rosenberg, S.A., and Kawakami, Y. Identification of a shared HLA-A\*0201 restricted T cell epitope from the melanoma antigen tyrosinase related protein 2 (TRP2). *Can Res.*, 58:21: 4895-901, 1998.
169. Chang, K-M., Gruner, N., Southwood, S., Pape, G., Chisari, F.V., and Sette, A. Identification of HLA-A3 and -B7 restricted cytotoxic T lymphocyte response to hepatitis C virus in patients with acute and chronic hepatitis C. *J Immunol*, Jan. 15;162(2):1156-64, 1999.
170. Nukaya, I., Yasumoto, M., Iwasaki, T., Ideno, M., Sette, A., Celis, E., Takesako, K., and Kato, I. Identification of HLA-A24 epitope peptide of carcinoembryonic antigen to induce cytotoxic T lymphocytes. *Int. J Cancer*, Jan. 5;80(1):92-97, 1999.
171. Kawashima, I., Tsai, V., Southwood, S., Takesako, K., Sette, A., and Celis, E. Identification of HLA-A3-restricted CTL epitopes from CEA and HER-2/neu by primary in vitro immunization with peptide-pulsed dendritic cells. *Can Res*, Jan 15; 162(2):1156-64,1999.
172. Franke, E., Hoffman, S.L., Sacci, J., Wang, R., Charoenvit, Y., Alexander, J., Del Guercio, M-F., and Sette, A. Pan DR binding sequence provides T cell help for induction of protective antibodies against *Plasmodium yoelli* sporozoites. *Vaccine*, 17(9-10):1201-5,1999.

173. Tsunoda, I., Sette, A., Kuang, L-Q., Oseroff, C., Ruppert, J., Arrhenius, T., Kubo, R., Chesnut, R. W., Fujinami, R., and Ishioka, G. Lipopeptide particles as the immunologically active component of CTL inducing vaccines. *Vaccine*, Feb. 26;17(7-8):675-85, 1999.
174. Pingel, S., Launois, P., Fowell, D.J., Turck, C.W., Southwood, S., Sette, A., Glaichenhaus, N., Louis, J.A., and Locksley, R.M. Altered ligands reveal limited plasticity in the T cell response to a pathogenic epitope. *J Exp Med*, Apr 5;189(7):1111-20, 1999.
175. Ishioka, G., Fikes, J., Hermanson, G., Livingston, B., Crimi, C., Qin, M., del Guercio, M-F., Oseroff, C., Dahlberg, C., Alexander, J., Chesnut, R., Sette, A. Utilization of MHC class I transgenic mice for development of minigene DNA vaccines encoding multiple HLA-restricted CTL epitopes. *J Immunol* Apr 1;162(7):3915-25, 1999.
176. Livingston, B.D., Alexander, J., Crimi, C., Oseroff, C., Vadi, R., Celis, E., Daly, K., Guidotti, L.G., Chisari, F.V., Fikes, J., Chesnut, R.W., Sette, A. Altered helper T lymphocyte (HTL) function associated with chronic HBV infection and its role in response to therapeutic vaccination in humans. *J Immunol*, Mar 1;162(5):3088-95, 1999.
177. Ruiz, P.J., Garren, H., Hirschberg, D.L., Langer-Gould, A.M., Levite, M., Karpuy, M.V., Southwood, S., Sette, A., Conlon, P., Steinman, L. Microbial epitopes act as altered peptide ligands to prevent Experimental Autoimmune Encephalomyelitis. *J Exp Med*, Apr 19;189(8):1275-84, 1999.
178. Scognamiglio, P., Accapezzato, D., Casciaro, M.A., Artini, M., Guglielmo, B., Santilio, I., Chircu, M.L., Sidney, J., Southwood, S., Abrignani, S., Sette, A., and Barnaba, V. Presence of effector CD8+ T cells in hepatitis C virus-exposed healthy seronegative donors. *J Immunol*, Jun 1;162:6681-9, 1999.
179. Clot, F., Gianfrani, C., Babron, M-C., Bouguerra, F., Southwood, S., Kagnoff, M., Troncone, R., Percopo, S., Eliaou, J-F., Clerget-Darpoux, F., Sette, A., Greco, L. HLA-DR53 molecules are associated with susceptibility to Celiac Disease and selectively bind gliadin-derived peptides. *Immunogenetics*, Aug; 49(9):800-7, 1999.
180. Furchner, M., Erickson, A.L., Allen, T., Watkins, D.I., Sette, A., Johnson, P.R., and Walker, C.M. The simian immunodeficiency virus envelope glycoprotein contains two epitopes presented by the Mamu-A\*01 class I molecule. *J Virol*, Oct; 73(10):8035-39, 1999.
181. Rongcun, Y., Salazar-Onfray, F., Charo, J., Malmberg, K.J., Evrin, K., Maes, H., Kono, K., Hising, C., Pertersson, M., Larsson, O., Lan, L., Appella, E., Sette, A., Celis, E. and Kiessling, R. Identification of new HER2/neu-derived peptide epitopes that can elicit specific CTL against autologous and allogeneic carcinomas and melanomas. *J Immunol* Jul 15;163(2):1037-44, 1999.
182. Heathcote, J., McHutchison, J., Lee, S., Tong, M., Benner, K., Minuk, G., Wright, T., Fikes, J., Livingston, B., Sette, A., Chesnut, R.W., and The CY-1899 T Cell Vaccine Study Group. A pilot study of the CY-1899 T-cell vaccine in subjects chronically infected with hepatitis B virus. *Hepatology*, Aug; 30(2):531-6, 1999.
183. Mamula, M., Gee, R., Elliott, J., Sette, A., Southwood, S., Jones, P-J, Blier, P. Isoaspartyl Post-translational Modification Triggers Autoimmune Responses to Self-proteins. *J Biol Chem*, Aug 6;274(32):22321-7 1999.
184. Tahara, K., Takosako, K., Sette, A., Celis, E., Kitano, S., and Akiyoshi, T. Identification of a MAGE-2-encoded human leukocytes antigen-A24-binding synthetic peptide that induces specific anti-tumor cytotoxic T lymphocytes. *Clin Can Res*. Aug;5(8):2236-41 1999.
185. Rossi, M., Maurano, F., Caputo, N., Auricchio, S., Sette, A., Capparelli, R., and Trocone, R. Intravenous or intranasal administration of gliadin is able to down regulate the specific immune response in mice. *Scand J Immunol* Aug;50(2):177-82 1999.
186. Lamonaca, V., Missale, G., Urbani, S., Pilli, M. Boni, C., Mori, C. Sette, A., Massari, M., southwood, S., Bertoni, R., Valli, A., Fiaccadori, F., Ferrari, C. Conserved hepatitis C virus sequences are highly immunogenic for CD4+ T cells: implications for vaccine development. *Hepatology* 30:1088-1098, 1999.

187. Moudgil, K., Southwood, S., Ametani, A., Kim, K., Sette, A., and Sercarz, E. The self directed T cell repertoire against mouse lysozyme reflects the profound influence of the hierarchy of its own determinants and can be recruited by the foreign, homologous lysozyme. *J Immunol*, Oct. 15; 163(8):4232-7 1999.
188. Lanier, J.G., Newman, M.J., Lee, E.M., Sette, A., and Ahmed, R. Peptide vaccination using noionic block copolymers induces protective anti-viral CTL responses. *Vaccine*, Oct 14;18(5-6):549-557 1999.
189. Evans DT, O'Connor DH, Jing P, Dzuris JL, Sidney J, da Silva J, Allen TM, Horton H, Venham JE, Rudersdorf RA, Vogel T, Pauza CD, Bontrop RE, DeMars R, Sette A, Hughes AL, Watkins DI, Virus-specific cytotoxic T-lymphocyte responses select for amino-acid variation in simian immunodeficiency virus env and Nef. *Nat Med* Nov;5(11):1270-6 1999.
190. Livingston, B.D., Crimi, C., Fikes, J., Chesnut, R.W., Sidney, J., and Sette, A. Immunization with the HBV Core 18-27 epitope elicits CTL responses in humans expressing different HLA-A2 supertype molecules. *Hum Immunol.*, (60):1013-7 1999.
191. Dzuris, J.L., Sidney, J., Appella, E., Chesnut, R.W., Watkins, D.I., Sette, A. Conserved MHC class I peptide binding motif between humans and rhesus macaques. *J Immunol*, 164(1):283-291 2000
192. Zarour, H.M., Kirkwood, J.M., Kierstead, L.S., Herr, W., Brusic, V., Slingsluff, C.L., Jr., Sidney, J., Sette, A., and Storkus, W.J. Melan-A/MART-1<sub>51-73</sub> represents an immunogenic HLA-DR4-restricted epitope recognized by melanoma-reactive CD4<sup>+</sup> T cells. *Proc Natl Acad Sci* Jan 4; 97(1):400-405 2000.
193. Alexander, J., del Guerio, M.F., Maewal, A., Qaiao, L., Fikes, J., Chesnut, R., Paulson, J., Bundle, DR, DeFrees, S., Sette, A. Linear PADRE T Helper Epitope and Carbohydrate B cell Epitope Conjugates Induce Specific High Titer IgG Antibody Responses. *J. Immunol.* Feb. 164:1625-1633, 2000.
194. Tan JT, Whitmire JK, Murali-Krishna K, Ahmed R, Altman JD, Mittler RS, Sette A, Pearson TC, Larsen CP. 4-1BB Costimulation Is Required for Protective Anti-Viral Immunity After Peptide Vaccination *J Immunol* Mar 1;164(5):2320-2325, 2000.
195. von Herrath, M.G., Berger, D.P., Homann, D., Tishon, Sette, A., and Oldstone, M.B.A. Vaccination to treat persistent viral infection. *Virology* Mar 15;268(2):411-419, 2000.
196. McKinney, D.M., Skvoretz, R., Qin, M., Ishioka, G., Sette, A. Characterization of an in situ IFN- $\gamma$  ELISA assay which is able to detect specific peptide responses from freshly isolated splenocytes induced by DNA minigene immunization. *J Immunol Methods* Apr 3;237(1-2):105-117, 2000.
197. Allen, T.M., Vogel, T.U., Fuller, D.H., Mothé, B.R., Steffen, S., Boyson, J.E., Shipley, T., Fuller, J., Hanke, T., Sette, A., Altman, J.D., Moss, B., McMichael, A.J., and Watkins, D.I. Induction of AIDS virus-specific CTL activity in fresh, unstimulated PBL from rhesus macaques vaccinated with a DNA Prima/MVA boost regimen. *J Immunol.* May 1;64(9):4968-78, 2000.
198. Gianfrani, C., Oseroff, C., Sidney, J., Chesnut, R.W., Sette, A. The human memory CTL responses specific for influenza A virus are broad and multispecific. *Hum Immunol.* May; 61(5):438-52, 2000.
199. Rensing, M.E., van Driel, W.J., Brandt, R.M.P., Kenter, G.G., de Jong, J.H., Bauknecht, T., van Dam, P., Fleuren, G-J., Hoogerhout, P., Offringa, R., Sette, A., Celis, E., Grey, H., Trimbos, B.J., Kast, W.M., and Melief, C.J.M. Detection of T helper responses, but not of human papillomavirus-specific cytotoxic T lymphocyte responses, after peptide vaccination of patients with cervical carcinoma. *J. Immunother.* Mar-Apr;23(2):255-66, 2000.
200. Franke, E.D., Sacci, J. Jr., Corradin, G., Sette, A., Southwood, S., and Hoffman, S. L. A subdominant CD8(+) cytotoxic T-lymphocyte (CTL) epitope from the *Plasmodium yoelii* circumsporozoite protein induces CTLs that eliminate infected hepatocytes from culture. *Infection and Immunity.* Jun;68(6):3403-3411, 2000.
201. Evans, D.T., Jing, P., Allen, T.M., O'Connor, D.H., Horton, H., Venham, J.E., Piekarczyk, M., Dzuris, J., Dykhuizen, M., Mitchen, J., Rudersdorf, R.A., Pauza, C. D., Sette, A., Bontrop, R.E., DeMars, R., Watkins, D.I. Definition of five new SIV CTL epitopes and their restricting MHC class I molecules: Evidence of an influence on disease progression. *J. Virol.* Aug 15;74(16):7400-7410, 2000



202. McKinney, D.M., Walker, C., Chisari, F.W., Sidney, J., Sette, A., Identification of five different Patr class I molecules which bind HLA supertype peptides and definition of their peptide binding motifs. *J. Immunol.* Oct. 15;165(8):4414-22, 2000
203. Doolan, D.L., Southwood, S., Chesnut, R., Appella, E., Maewal, A., Gomez, E., Sidney, J., Richards, A., Gramzinski, R.A., Hoffman, S.L., Sette, A. HLA-DR-promiscuous T cell epitopes from *Plasmodium falciparum* restricted by multiple HLA class II alleles. *J Immunol.* 165(2):112301137, 2000.
204. Reynolds, S.R., Celis, E., Sette, A., Oratz, R., Shapiro, R.L., Johnston, D., Fotino, M., and Bystry, J. Identification of HLA-A\*03, A\*011 and B\*07-restricted Melanoma-associated Peptides that are Immunogenic *in vivo* by Vaccine-induced Immune Response (VIIR) Analysis. *J. Immunol. Methods.* Oct. 20;244(1-2):59-67, 2000.
205. Cho, C., Mehra, V., Thoma-Uszynski, S., Stenger, S., Serbrina, N., Mazzaccaro, R., Flynn, J., Parnes, P., Southwood, S., Celios, E., Bloom, B.R., Modlin, R.L., Sette, A. Antimicrobial activity of MHC class I-restricted CD8+ T-cells in human tuberculosis. *PNAS.* 97(22):12210-12215, 2000.
206. Schueler-Furman, O., Altuvia, Y., Sette, A., Margalit, H. Structure-based prediction of binding peptides to MHC class I molecules: Application to a broad range of MHC alleles. *Protein Sci.* Sep;9(9):1838-46, 2000
207. Allen, T.M., O'Connor, D.H., Jing, P., Dzuris, J.L., Mothe, B.R., Vogel, T.U., Dunphy, E., Liebl, M.E., Emerson, C., Wilson, N., Kunstman, K.J., Wang, X., Allison, D.B., Hughes, A.L., Desrosiers, R.C., Altman, J.D., Wolinsky, S.M., Sette, A., Watkins, D.I. Tat-specific cytotoxic T lymphocytes select for SIV escape variants during resolution of primary viraemia. *Nature* 407:386-390, 2000.
208. Maverakis, E., Mendoza, R., Southwood, S., Raja-Gabaglia, C., Abromson-Leeman, S., Campagnoni, A.T., Sette, A., and Sercarz, E.E. Immunogenicity of self antigens is unrelated to MHC-binding affinity: T-cell determinant structure of Golli-MBP in the BALB/c mouse. *J. Autoimmun.* Nov.;15(3):315-322, 2000
209. Levitsky, V., Liu, D., Southwood, S., Levitskaya, J., Sette, A., Masucci, M.G. Degeneracy of MHC:peptide recognition in an EBV peptide specific CTL response with highly restricted TCR usage: implications for vaccine design and passive immunotherapy of EBV associated malignancies. *Hum Immunol.* Oct 1;61(10):972-984, 2000
210. Sidney, J., Dzuris, J.L., Newman, M.J., Johnson, R.P., Amitinder, K., Walker, C.M., Appella, E., Mothe, B., Watkins, D.I., Sette, A. Definition of the Mamu A\*01 peptide binding specificity: Application to the identification of wild-type and optimized ligands from simian immunodeficiency virus regulatory proteins. *J. Immunol*, Dec 1;165(11):6387-6399, 2000
211. Allen, T.M., Mothe, B.R., Sidney, J., Jing, P., Dzuris, J.L., Liebl, M.E., Vogel, T.U., O'Connor, D.H., Wang, X., Wussow, M.C., Thomson, J.A., Altman, J.D., Watkins, D.I., Sette, A. CD8+ lymphocytes from simian immunodeficiency virus-infected Rhesus Macaques recognize 14 different epitopes bound by the major histocompatibility complex class I molecule Mamu-A\*01: implications for vaccine design and testing. *J. Virol* 75(2):738-749, 2001.
212. Tanaka, H., Tsunoda, T., Nukaya, I., Sette A., Matsuda, K., Umamo, Y., Yamaue, H., Takesako, K., and Tanimura, H. Mapping the HLA-A24-restricted T-cell epitope peptide from a tumour-associated antigen HER2/nuc: Possible immunotherapy for colorectal carcinomas. *British J. Cancer.* Jan; 84(1):94-99, 2001
213. Sette, A., Oseroff, C., Sidney, J., Alexander, J., Chesnut, R.W., Kakimi, K., Guidotti, L.G., Chisari, F.V. Overcoming T cell tolerance to the Hepatitis B virus surface antigen in HBV transgenic mice. *J. Immunol.* Jan. 15; 166(2):1389-1397, 2001
214. Altfeld, M.A., Livingston, B., Reshamwala, N., Nguyen, T., Addo, M.M., Shea, A., Newman, M., Fikes, J., Sidney, J., Wentworth, P., Chesnut, R.W., Eldridge, R.L., Rosenbawrg, E.S., Flynn, T., Buchbinder, Y., Goulder, P.J.R., Walker, B.D., Sette, A., Kalams, S.A. Identification of Novel HLA-A2-restricted HIV-1-specific CTL epitopes predicted by the HLA-A2 supertype peptide-binding motif. *J. Virol.* Feb. 1; 75(3):1301-1311, 2001

215. Malhotra U., Dutta, S., Holte, S., Berrey, M.M., Sette, A., Corey, L., McElrath, J.J. The role of HLA class II molecules in the maintenance of viral suppression and CD4+ T cell immunity in early treatment of HIV-1 infection. *J. Clin. Inv.* Feb 15;107(4):505-517, 2001
216. Urvater, J.A., Hickman, H., Dzuris, J.L., Prilliman, K., Allen, T.M., Schwartz, K. J., Lorentzen, D., Shufflebotham, C., Collines, E. J., Neiffer, D. L. Raphael, B., Hildebrand, W., Sette, A., Watkins, D. I. Gorillas with spondyloarthropathies express an MHC class I molecule with only limited sequence similarity to HLA-B27 that binds peptides with arginine at P2. *J. Immunol.* Mar 1;166(5):3334-3344, 2001
217. Prezzi, C., Casciaro, M.A., Francavilla, V., Schiaffella, E., Finocchi, L., Chircu, L.V., Bruno, G., Sette, A., Abrignani, S., Barnaba, V. Virus-specific CD8(+) T cells with type 1 or type 2 cytokine profile are related to different disease activity in chronic hepatitis C virus infection. *Eur. J. Immunol.* Mar; 31(3):894-906, 2001
218. Kumar, A., Kumar, S., Le, T.P., Southwood, S., Sidney, J. Cohen, J., Sette, A., Hoffman, S.L. HLA-A\*01-restricted cytotoxic T-lymphocyte epitope from the *Plasmodium falciparum* circumsporozoite protein. *Inf. & Immunity* Apr. 69(4):2766-2771, 2001.
219. Wilson, C.C., Palmer, B., Southwood, S., Sidney, J., Higashimoto, Y., Appella, E., Chesnut, R., Sette, A., Livingston, B.D. Identification and antigenicity of broadly cross-reactive and conserved human immunodeficiency virus type 1-derived helper T-lymphocyte epitopes. *J. Virol.*, May 1;75(9):4195-4207, 2001
220. Thimme, R., Chang, K.M., Pemberton, J., Sette, A., and Chisari, F.V. Degenerate Immunogenicity of an HLA-A2-restricted hepatitis B virus nucleocapsid Cytotoxic T-lymphocyte epitope that is also presented by HLA-B51. *J. Virol.* Apr;75(8):3984-7, 2001
221. Logean, A., Sette, A., Rognan D. Customized versus universal scoring functions: application to class I MHC-peptide binding free energy predictions. *Bioorg Med Chem Lett.* Mar 12;11(5):675-9,2001
222. Rudolf, M.P., Man, S., Melief, C.J., Sette, A., Kast W.M. Human T cell responses to HLA-A restricted high binding affinity peptides of HPV-18 proteins E6 and E7. *Clin. Cancer Res.*, Mar; 7(3 Suppl):788s-795s, 2001
223. Puglielli, M.T., Zajac, A.J., van der Most, R.G., Dzuris, J.L., Sette, A., Altman, J.D., and Ahmed, R. In-Vivo selection of an LCMV variant that affects binding of the GP 33-43 epitope by H-2D<sup>b</sup> but not H-2K<sup>b</sup>. *J. Virol* 75(11):5099-5107, 2001
224. Ishioka, G., Fikes, J., Qin, M., Gianfrani, C., Chesnut, R., Woulfe, S., Sette, A. Dendritic cells mobilized by a novel hematopoietic growth factor, Progenipoietin, demonstrate potent immunological function. *Vaccine.* 19(27):3710-3719, 2001
225. Propato, A., Schiaffella, E., Vicenzi, E., Fancavilla, V., Balone, L., Finocchi, L., Tanigaki, N., Ghezzi, S., Ferrara R., Chesnut, R.W., Livingston, B., Sette, A., Paganelli, R., Aiuti, F., Poli, G., Barnaba, V. Spreading of HIV-specific CD8+ T cell repertoire in long-term non-progressors and its role in the control of viral load and disease activity. *Hum Immunol.* 62(6):561-576, 2001
226. E. Keogh, J. Fikes, S. Southwood, E. Celis, R. Chesnut and A. Sette. Identification of new epitopes from four different tumor-associated antigens: recognition of naturally processed epitopes correlates with HLA-A\*0201-binding affinity. *J. Immunol.* 167:787-796, 2001
227. Brander, C., O'Connor, P., Suscovich, T., Jones, N.G. Lee, Y., Dedes, D., Ganem, D., Martin, J., Osmond, D., Southwood, S., Sette, A., Walker, B.D., Scadden, D.T. Definition of an optimal cytotoxic T lymphocyte epitope in the latently expressed kaposi's sarcoma – associated Herpesvirus kaposin protein. *J. Inf. Dis.* 184:119-126, 2001
228. Guilherme, L., Nto, E.C., Renesto, G., Goldber, A.C., Tanaka, A.C., Pomerantzeff, P., Kiss, M.H., Silva, C., Guzman, F., Patarroyo, M.E., Southwood, S., Sette, A., Kalil, J. Identification of immunodominant streptococcal M5 protein epitopes and heart tissue antigens in rheumatic heart disease patients: peripheral T cells and heart infiltrating T cell clones. *Inf. Immunity.* 69(9):5345-5341, 2001

229. B. Livingston, D. McKinney, C. Crimi, R. Chesnut, M. Newman and A. Sette. Optimization of Epitope Processing Enhances Immunogenicity of Multi-Epitope Vaccines. *Vaccine*. 19(32):4652-4660, 2001
230. S. Tangri, X. Huang, S. Southwood, G.Y. Ishioka, J. Fikes, and A. Sette. Structural Features of Peptide Analogs of HLA Class I Epitopes that are More Potent and Immunogenic than Wildtype Peptide. *J. Exp. Med.* 194(6):833-846, 2001
231. J. Sidney, S. Southwood, Mann, Fernandez-Vina, M. Newman and A. Sette. The majority of HLA-A\*0201 binding peptides cross-react with other A-2 supertype molecules. *Hum Immunol.* In Press.
232. J. Dzuris, J. Sidney, D. Watkins, H. Horton, R. Correa, N. Letvin and A. Sette. Molecular determinants of peptide binding to two common Rhesus Macaque MHC Class II molecules. *J. Virol.* 2001 Nov; 75 (22):10958-68.
233. Belyakov, I.M., Zdenek, H., Kelsall, B., Ahlers, J.D., Watkins, D.I., Allen, T.M., Sette, A., Altman, J., Woodward, R., Markham, P., Clements, J.D., Kuznetsov, V., Franchini, G., Strober, W. and Berzofsky, J.A. Mucosal immunization with synthetic HIV/SIV vaccine is more effective than systemic immunization at inducing mucosal SIV-specific CTL and reducing viral load and disease after mucosal challenge of macaques with pathogenic SHIV-Ku. *Nature Medicine*. In Press.
234. Lou, Y-H., Ang, J., Southwood, S., Sette, A., and Tung, K.K.S. Universal T cell inducing capacity of a chimeric peptide is due to a cluster of binding domains to different MHC class II molecules created in the chimeric junction. Submitted.
235. Erickson, A.L., Kimura, Y., Igarishi, S., Eichelberger, J., Houghton, M., Sidney, J. McKinney, D., Hughes, A.L. Sette, A., Walker, C.M. The outcome of hepatitis C virus infection is predicted by escape mutations in epitopes targeted by cytotoxic T lymphocytes. *Immunity*, In Press.
236. Tong, W., Vajda, S., Sette, A., DeLisi, C., Weng, Z. A new method for predicting high affinity MHC-binding peptides based on linear programming. Submitted.
237. Touloukian, C.E., Schnur, R.E., Robbins, P.F., Southwood, S., Sette, A., Rosenberg, S.A., Restifo, N.P. Self-tolerance to the melanoma antigen OA1 using a human antigen knockout. Submitted.
238. Allen, T.M., Fuller, D.H., Jing, P., Horton, H., Calore, B., O'Connor, D.H., Hanke, T., Piekarczyk, M., Kunstman, K., Emerson, C., Wang, X., Wilson, N., Lifson, J.D., Berzovsky, J.A., Allison, D.B., Altman, J., Desrosiers, R.C., Wolinsky, S.M., Sette, A., McMichael, A.J., Watkins, D.I., Effects of CTL directed against a single SIV Gag CTL epitope on the course of SIVmac239 infection. Submitted.
239. Allen, TM, Mortara L, Mothe, BR, Liebl, M, Jing, P, Calore B, Piekarczyk, M, Ruddersdorf R, O'Connor, DH, Fuller, D, Wang, X, Altman, JD, Sette, A., Desrosiers, R, Sutter, G and Watkins, DI. Tat-vaccinated Macaques do not control SIVmac239 replication. Submitted.
240. Kierstead, L.S., Ranieri, E., Olson, W., Brusie, V., Sidney, J., Sette, A., Slingsluff Jr., C.L., Kirkwood, J.M. and Storkus, W.J. Multiple gp 100/pm117- and Tyrosinase-derived peptides are recognized by melanoma-reactive, IFN- $\gamma$ -secreting CD4+ T cells. Submitted.
241. Kakimi, K, Sette, A., Chisari, FV. Immunogenicity and tolerogenicity of hepatitis B viral structural and nonstructural proteins: Implications for immunotherapy of persistent viral infections. Submitted.

#### Reviews, Chapters of Books, Proceedings of Scientific Meetings:

1. Adorini, L., Palmieri, G., Sette, A., Colizzi, V., Appella, E., and Doria, G. Synthetic peptides in the analysis of T cell interactions. *Ann. Sclavo Collana. Monogr.* 1: 87-102, 1984.
2. Adorini, L., De Santis, R., Palmieri, G., Sette, A., Pini, C., Ballinari, D., Colizzi, V., Ricciardi, P., Appella, E., and Doria, G. Lysozyme-specific monoclonal suppressor T cell products. *Proceedings International Symp. "Monoclonal Anti-bodies 84," Firenze, 1984.*
3. Adorini, L., Palmieri, G., Sette, A., Pini, C., Ballinari, D., and Doria, G. Relazione fra molecole solubili ad attivita' immunosoppressoria ed il recettore per l'antigene di cellule T soppressorie antigene-specifiche. *Terapeutika Vol. II, No. 5, 1985.*

4. Palmieri, G., Sette, A., De Santis, R., Appella, E., Doria, G., and Adorini, L. The membrane receptor for antigen of mouse antigen-specific suppressor T cells. In: Cell Membranes and Cancer Galeotti, T. et al. (eds.), Elsevier Publ. pp. 383-389, 1985.
5. Adorini, L., Sette, A., Appella, E., and Doria, G. Helper and suppressor T cell-inducing determinants of lysozyme N-terminal synthetic peptides. Pergamon Press, 1987.
6. Buus, S., Sette, A., and Grey, H. M. The interaction between protein-derived immunogenic peptides and Ia. *Immunol. Rev.* 98:115-141, 1987.
7. Grey, H. M., Buus, S., and Sette, A. The interaction between immunogenic peptides and Ia. Proceedings of the Arden Conference 1986. In: Processing and Presentation of Antigens Pernis, B. et al. (eds.), pp. 201-213, Academic Press, 1988.
8. Werdelin, O., Mouritsen, S., Petersen, B. L., Sette, A., and Buus, S. Facts on the fragmentation of antigens in presenting cells, on the association of antigen fragments with MHC molecules in cell-free systems, and speculation on the cell biology of antigen processing. *Immunol. Rev.* 106:181-193, 1988.
9. Sette, A., Buus, S., and Grey, H. M. Structural requirements of an ovalbumin- derived immunogenic peptide for T cell activation and interaction with IA<sup>d</sup>. In MHC + X Complex Formation and Antibody Induction. Ed., P. Ivanyi, Springer-Verlag, Heidelberg, pp. 178-185, 1988.
10. Sette, A., Buus, S., and Grey, H. M. Molecular basis and functional relevance of peptide:Ia interactions. In The Immune Response to Structurally Defined Proteins: The Lysozyme Model Smith-Gill, S. J. and Sercarz, E. (eds.), pp. 223-230, Adenine Press, New York, 1989.
11. Grey, H. M., Sette, A., and Buus, S. Structural characteristics of peptides required for their interaction with IA<sup>d</sup>. In, Molecular Basis of the Immune Response Ed., C. A. Bona, Ann. N.Y. Acad. Sci. 546:72-79, 1989.
12. Grey, H. M., Buus, S., Appella, E., and Sette, A. Functional and molecular studies on the interaction between peptides and Ia antigens. *EOS-J Immunol Immunopharmacol.*, Rome, Vol. IX, n. 1, pp. 12-16, 1989.
13. Grey, H. M., Buus, S., Colon, S., Miles, C., and Sette, A. Structural requirements and biologic significance of interactions between peptides and the major histocompatibility complex. *Philos. Trans. R. Soc. Lond. (Biol.)*, 323:545-552, 1989.
14. Grey, H. M., Sette, A., and Buus, S. How T cells see antigen. *Sci. Am.* 261(5):56-64, November, 1989.
15. Grey, H. M., Sette, A., and Lamont, A. Biologic significance and therapeutic implications of antigen/MHC interactions. *Clin. Immunol. Immunopathol.* 53, S47-52, Academic Press, Inc., San Diego, 1989.
16. Demotz, S., Grey, H. M., and Sette, A. Studies on the nature of physiologically processed antigen. In, Progress In Immunology, Vol. VII, F. Melchers, ed., Springer-Verlag, Berlin, pp. 60-67, 1989.
17. Grey, H. M., Demotz, S., Buus, S., and Sette, A. Studies on the nature of physiologically processed antigen and on the conformation of peptides required for interaction with MHC. In, Cold Spring Harbor Symposia on Quantitative Biology, Vol. 54, pp. 393-399, Cold Spring Harbor Laboratory Press, 1989.
18. Buus, S., Sette, A., Shaeffer, E. B., and Grey, H. M. The interaction between MHC class II molecules and immunogenic peptides. In, Genes and Gene Products in the Development of Diabetes Mellitus. Basic and Clinical Aspects, Eds., J. Nerup, T. Mandrup-Poulsen, and B. Hökfelt, Elsevier Science Publishers, Excerpta Medica, Amsterdam-New York-Oxford, pp. 31-39, 1989.
19. Grey, H. M., Buus, S., and Sette, A. Structural and functional studies on MHC-peptide antigen interactions. In, Immunological Adjuvants and Vaccines. Eds., G. Gregoriadis, A. C. Allison, and G. Poste, Plenum Publishing Corp., New York, pp. 13-20, 1989.
20. Sette, A. Buus, S., Appella, E., Adorini, L., and Grey, H. M. Structural requirements for the interaction between class II MHC molecules and peptide antigens. *Immunol. Res.* 9:2-7, 1990.
21. Sette, A., Adorini, L., Appella, E., Buus, S., and Grey, H. M. The interaction between peptide antigens and I-E<sup>d</sup> molecules. In, Immunogenicity, UCLA Symp. on Molec. Cell Biol., New Series, Vol. 113, Eds., C. Janeway, J. Sprent, and E. Sercarz, Alan R. Liss, Inc., N.Y., pp. 27-35, 1990.

22. Buus, S., Sette, A., Shaeffer, E. B., and Grey, H. M. The interaction between MHC class II molecules and immunogenic peptides. In, The Molecular Biology of Auto-immune Disease, Eds., A. G. Demaine, J-P. Banga, and A. M. McGregor, NATOASI Series, Vol. H 38, Springer-Verlag, Berlin Heidelberg, 1990, pp. 171-179, 1990.
23. Lamont, A., Sette, A., and Grey, H. M. Inhibition of antigen presentation *In vitro* and *in vivo* by MHC antagonist peptides. *Int. Rev. Immunol.* 6:49-59, Harwood Academic Publishers, New York, 1990.
24. Lamont, A. G., Grey, H. M., Powell, M. F., and Sette, A. The MHC antagonist approach in autoimmunity. In, Molecular Autoimmunity, N. Talal, ed., Academic Press Ltd., London, pp. 425-435, 1991.
25. Sette, A., O'Sullivan, D., and Grey, H. M. Nature and specificity of human class II molecules interactions with peptide antigens. In, Antigen Processing and Presentation, CRC Press, Inc., pp. 73-83, 1991.
26. Sette, A., O'Sullivan, D., Krieger, J. I., Karr, R. W., Lamont, A. G., and Grey, H. M. MHC-antigen-T cell interactions: an overview. In, Seminars in Immunology, Ed., M. L. Geftter, W. B. Saunders, Philadelphia-London, Vol. 3, pp. 195-202, 1991.
27. Sette, A., Wentworth, P., and Grey, H. M. Major histocompatibility complex binding peptides: a target for therapeutic development. In, Current Opinion in Biotechnology. Vol. 2/6, S. Gillis, ed., London, pp. 877-881, 1992.
28. Sette, A. and Grey, H. M. Chemistry of peptide interactions with MHC proteins. *Curr. Opin. Immunol.* 4:79-86, 1992.
29. Sette, A., Lamont, A. G., and Grey, H. M. The design of MHC binding peptides. In, Biologically Active Peptides: Design, Synthesis, and Utilization, Vol. I, Biomedical Applications of Biotechnology Series, Eds., W.V. Williams and D.B. Weiner, Technomics Publishing Co., Inc., Lancaster, PA, pp. 289-305, 1992.
30. Grey, H. M., Alexander, J., Snoke, K., Sette, A., and Ruppert, J. Antigen analogues as antagonists of the T cell receptor. *Clin. Exp. Rheumatology* 11 (8):S47-50, 1993.
31. Sette, A., Snoke, K., and Alexander, J. Rational design of peptides capable of acting as antagonists of the T cell receptor. *Chimicaoggi/Chemistry Today* 11:9-16, 1993.
32. Sette, A., DeMars, R., Grey, H. M., Oseroff, C., Southwood, S., Appella, E., Kubo, R. T., and Hunt, D. F. Isolation and characterization of naturally processed peptides bound by class II molecules and peptides presented by normal and mutant antigen presenting cells. In, Naturally Processed Peptides, Chemical Immunology Series, Ed. A. Sette, Karger Publishers, Budapest, Hungary, pp. 152-164, 1993.
33. Ishioka, G. Y., Lamont, A. G., Thomson, D., Bulbow, N., Gaeta, F. C. A., Sette, A., and Grey, H. M. Major histocompatibility complex class II association and induction of T cell responses by carbohydrates and glycopeptides. *Springer Semin. Immunopathol.* 15:293-302, 1993.
34. Hunt, D. F., Shabanowitz, J., Michel, H., Cox, A. L., Dickinson, T., Davis, T., Bodnar, W., Henderson, R. A., Sevilir, N., Engelhard, V. H., Sakaguchi, K., Appella, E., Grey, H. M., and Sette, A. Sequence analysis of peptides presented to the immune system by class I and class II MHC molecules. In, Methods in Protein Sequence Analysis, Eds. K. Imabori and F. Sakiyama, Plenum Press, New York, pp. 127-133, 1993.
35. Sette, A., Alexander, J., Ruppert, J., Snoke, K., Franco, A., Ishioka, G., and Grey, H. M. Antigen analogs/MHC complexes as specific T cell receptor antagonists. *Annu. Rev. Immunol.* 12:413-431, 1994.
36. Sette, A., Alexander, J., Ruppert, J., Snoke, K., Franco, A., Ishioka, G. Y., and Grey, H. M. Molecular analysis of MHC-peptide-TCR interactions. In, Antigen Processing and Presentation, Eds., R. E. Humphrey and S. K. Pierce, Academic Press, Inc., San Diego, CA, pp. 257-269, 1994.
37. Ruppert, J., Kubo, R. T., Sidney, J., Grey, H. M., and Sette, A. Class I MHC-peptide interactions: structural and functional aspects. In, MHC Molecules and Peptides: Structure and Function, Behring Inst. Mitt., No. 94, pp. 48-60, 1994.
38. Franco, A., Ishioka, G. Y., Adorini, L., Alexander, J., Ruppert, J., Snoke, K., Grey, H. M., and Sette, A. MHC blockade and TCR antagonism as strategies for immunomodulation. *The Immunologist* 2/3, pp. 97-102, 1994.

39. Sette, A., Sidney, J., del Guercio, M-F., Southwood, S., Ruppert, J., Dahlberg, C., Grey, H. M., and Kubo, R. T. Peptide binding to HLA class I molecules measured by a quantitative molecular binding assay. In, Proc. 6th Eur. Cong. Biotech., Eds. L. Alberghina, L. Frontali and P. Sensi, Elsevier Science Publishers B. V., Florence, Italy, pp. 803-806, 1994.
40. Grey, H. M., Ruppert, J., Vitiello, A., Sidney, J., Kast, W. M., Kubo, R. T., and Sette, A. Class I MHC-peptide interactions: structural requirements and functional implications. In, Cancer Surveys, Vol. 22: Molecular Mechanisms of the Immune Response, Imperial Cancer Research Fund, Cold Spring Harbor Laboratory Press, New York, pp. 37-49, 1995.
41. Chesnut, R. W., Sette, A., Celis, E., Wentworth, P., Kubo, R. T., Alexander, J., Ishioka, G., Vitiello, A., and Grey, H. M. Design and testing of peptide-based cytotoxic T-cell-mediated immunotherapeutics to treat infectious diseases and cancer. In, Vaccine Design, Vol. 6, The Subunit and Adjuvant Approach, Eds. M. F. Powell and M. J. Newman, Plenum Press, New York, pp 847- 1995.
42. Ruppert, J., Franco, A., Alexander, J., Snoke, K., Ishioka, G. Y., Page, D. M., Hedrick, S. M., Adorini, L., Grey, H. M., and Sette, A. MHC blocking peptides and T cell receptor antagonists: novel paths to selective immunosuppression? In, Selective Immunosuppression: Basic Concepts and Clinical Applications, Chemical Immunology Series, Vol. 60, Ed. L. Adorini, Karger Publishers, Basel, Switzerland, pp. 61-78, 1995.
43. Alexander, J., Ruppert, J., Page, D. M., Hedrick, S. M., Franco, A., Ishioka, G. Y., Grey, H. M., and Sette, A. Antigen analogs as therapeutic agents. In, Proc. 2nd Internat. Symposium on Inhibitors to Coagulation Factors, Eds. L.M. Aledert et al., Plenum Press Corp., New York, pp. 109-118, 1995.
44. Sette, A., Alexander, J., and Grey, H. M. Interaction of antigenic peptides with MHC and TCR molecules. In, Clinical Immunology and Immunopathology: The Molecular and Cellular Basis of Immunological Disease. The Jeffrey Modell Immunodeficiency Symposium: Advances in Primary Immunodeficiency. Ed. N. R. Rose, Academic Press, Inc. 1995, Vol. 76 Part 2 of 2, pp. S168-S171.
45. Franco, A., Ferrari, C., Sette, A., and Chisari, F. V. Viral mutations, TCR antagonism and escape from the immune response. *Current Opinion in Immunology*, 7:524-531, 1995.
46. Celis, E., Sette, A., and Grey, H. M. Epitope selection and development of peptide based vaccines to treat cancer. In Seminars in Cancer Biology, Vol. 6, pp. 329-336, 1995.
47. Appella, E., Loftus, D. J., Sakaguchi, K., Sette, A., and Celis, E. Synthetic antigenic peptides as a new strategy for immunotherapy of cancer. *Biomedical Peptides, Proteins and Nucleic Acids*, 1:177-184, 1995.
48. Loftus, D. J., Kubo, R. T., Sakaguchi, K., Celis, E., Sette, A., and Appella, E. Analysis of MHC-specific peptide motifs: Applications in immunotherapy. *Adv. Exp. Med. Biol.*, 383:201-210, 1995.
49. Sette, A., Alexander, J., Snoke, K., and Grey, H. M. Antigen analogs as tools to study T cell activation function and activation. In Seminars in Immunology, Issue SI 8/2, pp. 103-108. Ed. Lewis Millington, Academic Press, Cambridge. 1996.
50. Sidney, J., Grey, H. M., Kubo, R. T., and Sette, A. Practical, Biochemical and Evolutionary Implications of the Discovery of HLA class I Supermotifs. *Immunology Today*, 17:261-266, 1996.
51. Sidney, J., Kubo, R. T., Wentworth, P. A., Alexander, J., Chesnut, R. W., Grey, H. M., and Sette, A. Broadly reactive HLA restricted T cell epitopes and their implications for vaccine design. In Concepts in Vaccine Development, Ed. Stefan H. E. Kaufmann, Walter de Gruyter, Berlin. pp. 169-186, 1996.
52. Sette, A., Sidney, J., Alexander, J., and Grey, H. M. Measuring the capacity of peptides to bind classII MHC molecules and act as TCR antagonists. In Immunology Methods Manual. Ed.T. Picknett, Academic Press Limited, London, England.pp. 649-667, 1997.
53. Nicholson, L.B., Carrizosa, A. M., Sette, A., Kuchroo, V. K. Strategies and rationale for the design of antigen analogs to study the T cell receptor. In The human antigen T cell receptor. Selected protocols and applications. Ed. J. Oksenberg, Landes Bioscience and Chapman & Hall, Texas, pp. 719-752, 1997.

54. Doolan, D. L., Southwood, S., Wentworth, P. A., Hoffman, S. L., and Sette, A. Design of a subunit malaria vaccine incorporating HLA-restricted CD8+ T-cell epitopes of multiple *Plasmodium falciparum* antigens. In *Vaccines 97*, Cold Spring Harbor Laboratory Press. pp. 207-211, 1997.
55. Sidney, J., Southwood, S., Oseroff, C., del Guercio, M. F., Grey, H. M., and Sette, A. Measurement of MHC/peptide interactions by gel filtration. *Curr. Protocols Immunol.* 18.3.2-18.3.19, 1998.
56. Tsai, V., Kawashima, I., Keogh, E., Daly, K., Sette, A. and Celis, E. *In vitro* immunization and expansion of antigen-specific cytotoxic T lymphocytes for adoptive immunotherapy using peptide-pulsed dendritic cells. *Crit. Reviews in Immunology*, 18(1-2):65-75, 1998.
57. Sette, A. and Sidney, J. HLA supertypes and supermotifs: a functional perspective on HLA polymorphism. *Current Opinion in Immunol.*, 10: 478-482, 1998.
58. Alexander, J., Fikes, J., Hoffman, S., Appella, E., Chisari, F., Guidotti, L., Chesnut, B., Livingston, B., and Sette, A. The optimization helper T lymphocyte (HTL) function in vaccine development. *Immunologic Research*, 18(2): 79-92, 1998.
59. Sette, A., Alexander, J., Appella, E., Celis, E., Chisari, F., Kubo, R., Livingston, B., Sakeguchi, K., Sidney, J., Vitiello, A., Wentworth, P., Grey, H., and Chesnut, R. The use of synthetic peptides to characterize CTL responses in acute and chronic viral diseases. In *Persistent Viral Infections*, Ed. R. Ahmed and I. Chen, John Wiley & Sons, England, 1999.
60. Sette, A. and Sidney, J. Nine major HLA class I supertypes account for the vast preponderance of HLA A and B polymorphism. *Immunogenetics* 50:201-212 1999.
61. An, L-L., Sette, A., The multivalent minigene approach to vaccine development. *Exp. Opin. Invest. Drugs* (1999) 8(9):1351-1357.
62. Sette, A., Nepom, G.T., Editorial Review: Antigen Recognition. *Current Opinion in Immunology*, 2000, 12(1):77-79.
63. Sette, A., Chesnut, R., Livingston, B., Wilson, C., Newman, M. HLA binding peptides as a therapeutic approach for chronic HIV infection. *Current Opinion in Anti-Infective Investigational Drugs*, 2000, 2(3):265-271.
64. Sette, A. Tools of the trade in vaccine design. *Science*. 290:2074-2075, 2000.
65. Sette, A., Newman, M., Fikes, J., Chesnut, R. W. Epitope identification for vaccine development and functional genomic analysis. Proceedings of the Sheikh Hamdan Bin Rashid Al Maktoum Award for Medical Science. *Emirates Medical Journal* 18(3 Suppl.):23-26, 2000.
66. Sette, A., Chesnut, R., Fikes, J. HLA Expressions in Cancer: Implications for T Cell-Based Immunotherapy. *Immunogenetics*. 53(4):255-263, 2001
67. Sette, A., Livingston, B., Appella, E., Fikes, J., Sidney, J., Newman, M., Chesnut, R. The Development of multi-epitope vaccines: epitope identification, vaccine design and clinical evaluation. *Developments in Biological Standardization*. In Press. 2001.
68. Sette, A., Keogh, E., Ishioka, G., Sidney, J., Tangri, S. Livingston, B., McKinney, D., Newman, M., Chesnut, R., Fikes, J. Epitope identification and vaccine design for cancer immunotherapy. *Current Opinion In Investigational Drugs*. In Press.
69. Engler, OB, Dai, WJ, Sette, A., Hunziker, IP, Reichen, J. Pichler, WJ and A. Cerny. Peptide vaccines against Hepatitis B virus: from animal model to human studies. *Mol. Immunol.* 2001. In Press.

System	Sequence	Organism	Source	Reference
Infectious disease antigens	GLLGWSPQA	HBV	Env 62	Bertoni et al., J Clin Invest 100: 503, 1997
	FLLAQFTSA	HBV	Pol 503	Livingston et al., unpublished observations
	YMDDVVLGA	HBV	Pol 538	Rehermann et al., J Clin Invest 97: 1655, 1996
	LLFLLADA	HCV	NS1/E2 726	Scognamiglio et al., J Immunol 162: 6681, 1999
	VLVGGVLAA	HCV	NS4 1666	Scognamiglio et al., J Immunol 162: 6681, 1999
	WMNRLIAFA	HCV	NS4 1920	Scognamiglio et al., J Immunol 162: 6681, 1999
	LTFGWCFKL	HIV	Nef 62	Altfeld et al., J Virol 75: 1301, 2001
	LVGPTPVNI	HIV	Pol 100	Altfeld et al., J Virol 75: 1301, 2001
	YTAFTIPSI	HIV	Pol 83	Altfeld et al., J Virol 75: 1301, 2001
	KLVGKLNWA	HIV	Pol 87	
	RILQQLFI	HIV	Vpr 72	Altfeld et al., J Virol 75: 1301, 2001
	AIIRLQQL	HIV	Vpr 76	Altfeld et al., J Virol 75: 1301, 2001
	MINAYLDKL	P. falciparum	STARP	Gonzalez et al., Parasite Immunol 22: 501, 2000
	KILSVFFLA	P. falciparum	EXP1 2	Doolan et al., Immunity 7: 97, 1997
				Doolan et al., Immunity 7: 97, 1997; Sette et al., unpublished observations <sup>a</sup>
	LIFFDLFLV	P. falciparum	SSP2 15	
	FVNHDFTVV	T. cruzi	ASP-1 508	Wizel et al., J Clin Invest 102: 1062, 1998
	IAGGVMAVV	T. cruzi	ASP-1 71	Wizel et al., J Clin Invest 102: 1062, 1998
	WVFPEISPV	T. cruzi	ASP-2 302	Wizel et al., J Clin Invest 102: 1062, 1998
	FVNHRFTLV	T. cruzi	ASP-2 551	Wizel et al., J Clin Invest 102: 1062, 1998
	FVDYNFTIV	T. cruzi	TSA-1 514	Wizel et al., J Clin Invest 102: 1062, 1998
Tumor associated antigens	TIHDIIECV	HPV	E6 29	Ressing et al., J Immunol 154: 5934, 1995
	FAFKDLFVV	HPV	E6 47	Castellanos et al., Gynec Oncol 82: 77, 2001
	FAFRDLCIV	HPV	E6 52	Ressing et al., J Immunol 154: 5934, 1995
	KATLQDIVLHL	HPV	E7 5	Castellanos et al., Crit Rev Oncol/Hemat 39: 133, 2001
	GTLGIVCPI	HPV	E7 85	Wentworth et al., Eur J Immunol 26: 97, 1996
	KTWGQYWQV	Human	gp100 154	Kawakami et al., J Immunol 154: 3961, 1995
	ITDQVPFSV	Human	gp100 209	Kawakami et al., J Immunol 154: 3961, 1995
	YLEPGPVTA	Human	gp100 280	Kawakami et al., J Immunol 154: 3961, 1995
	KIFGSLAFL	Human	HER2 369	Kawashima et al., Human Immunol 59: 1, 1998
	KIFGSLAFL	Human	Her-2/neu 369	Lustgarten et al., Human Immunol 52: 109, 1997
	KIWEELSML	Human	MAGE2 220	Fikes et al., unpublished observations
	KVAELVHFL	Human	MAGE3 112	Kawashima et al., Human Immunol 59: 1, 1998
	AAGIGILTV	Human	MART1 27	Rivoltini et al., J Immunol 154: 2257, 1995
	AARAVFLAL	Human	Tyrosinase	Boel et al., Immunity 2: 167, 1995

a. Epitope described in the literature nested the peptide indicated.

## EXHIBIT B

Serial No. 08/349,177  
Docket No. 399632000623